

GRAPHIC PAINTBOX 2

MENU

REFERENCE

Operating Software V4

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Graphic Paintbox 2

AMENDMENT RECORD

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ABOUT THIS MANUAL

This manual covers the operation of the Graphic Paintbox 2 and details the system's menus in the hierarchical order in which they appear.

CHAPTER 1 : PAINTING

This chapter details the system's *Painting* menu, describing the various paint brushes (including *custom*, *profile*, *restore*, *reversible paint* and *reversible black*) and the *cutouts*, *draw black*, *grid*, *zoom* and *temporary buffers* menus.

CHAPTER 2 : COLOUR

This chapter details the system's *Colour* menu which includes the *match*, *control*, *hue*, *print limit* and *effects* menus.

CHAPTER 3 : MASKS

This chapter details the system's *Masks* menu which includes the *hicon*, *automask*, *grow* and *black* functions.

CHAPTER 4 : LIBRARY

This chapter details the system's *Library* menu which includes the *find*, *save*, *replace*, *keep*, *lose* and *recall* functions.

CHAPTER 5 : PASTEUP

This chapter details the system's *Pasteup* menu, which includes the 3 Dimensional position, *size*, *spin*, *pin* menu controls and the *warp* function.

CHAPTER 6 : SETUP

This chapter details the system's *Setup* menu, which can be used to set up a specific task with *job* and *grid* functions, that can record a series of menu functions to be replayed with the *sequence* function. The *artist*, *palette*, *LUTs* and *print controls* are used to set up user defined preferences and to build manual lookup tables.

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CHAPTER 7 : FULL PAGE

This chapter details the system's *Full Page* menu which is used for setting up and configuring the system via the *disk*, *configure*, *engineer* and *system* menus.

APPENDIX A : MAC TCP/IP

This chapter details some of the information required for setting up TCP/IP on a Macintosh system. It should not be regarded as definitive and should always be read in conjunction with any documentation supplied with the Macintosh and the documentation for the software which is or will be installed.

APPENDIX B : GPB 2 MAC MENUS

This chapter details the instructions that are used with the GPB 2 application that resides on a Macintosh computer, linked to the the GPB 2 workstation for image transfer.

NOTICES

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MAINTENANCE

Maintenance and Servicing of this equipment should only be carried out by qualified service personnel.

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CONVENTIONS USED

- ☞ **WARNING:** Indicate danger to life and limb if the indicated statements are ignored, or the indicated procedures are not performed correctly.
- ☞ **Cautions:** Indicate possible damage to (or misalignment of) the equipment if the indicated statements are ignored, or the indicated procedures are not performed correctly.

Numbers which appear after either the word '**WARNING**' or '**Caution**' (for example; **WARNING 12**), and dates which appear at the end of either of these items (in the format **(05/98)** for example), are for Quantel internal reference only.



Refer as indicated to the Fundamentals volume of this manual set



Refer as indicated to the Menu Reference volume of this manual set

Text Text in this font and style indicates a reference to another section of this Manual, or a section of another Manual in this set.

<TEXT> Text in these brackets represents a key press on the Keyboard.

NN This indicates a value entered on the numeric keypads.

Text Text in italics represents a menu function or option. Main menu items are shown in capitalised italics and sub menu functions are given in lower-case italics.

Text Text in bold italics represents a menu function on the Macintosh.

Note: Appears before information which is of special significance to the current function.

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CHAPTER 1

PAINTING MENU

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BRUSHES

Description

Paint, chalk, airbrush and custom are the four basic brush types which, as well as being used for their named functions, can also be used with *wash, shade, copy, smudge* and *restore*. It is possible to 'mix and match' different brush types to suit different requirements. In all *Painting* modes, the pen offers adjustable pressure sensitivity. Tap on the blue 'brush title bar' (showing *airbrush* in the menu illustrated) to reveal a roller menu of available brushes.



Note: To paint directly to the 'current image', the menu is first swiped off screen. When in 'painting' mode, selecting button four (4) on the Grip will recall the *zigzag* display to check for banding.



See Chp 2 - "Colour - greys - zigzag".



See Chp 5 - "Painting" & "Palette and Brushes".



See Chp 2 - "Custom Brushes"

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Operation



The colour pot to the left of the 'brush title bar' indicates the current colour loaded on the pen.

The 'brush title bar' itself will indicate the currently selected brush type. All brush types can be used in conjunction with pressure sensitive *density* and/or *size* (*the density and size boxes are described in the appropriate places below*).

paint

Round in shape, this brush can be used in a similar manner to a wide range of conventional media, from oils to pencils.

airbrush

This is the default brush type, automatically selected on power-up. It mimics a conventional airbrush, allowing the majority of conventional techniques to be applied.

chalk

This is similar to *paint* but with a texture not unlike chalk, or a soft pencil or crayon on textured paper. A fine *chalk* brush can be used to simulate pencil sketching techniques.

custom

While the word 'custom' will only appear in the roller menu if a brush has been saved with that title, this is the name given to user-defined brushes. The individual titles of loaded custom brushes will appear in the roller menu; new brushes can be created using *edit - new - see below*.

big

Big offers a selection of very large brush sizes for use with the *restore*, *rev paint*, *rev black*, *ctrl paint* and *pickup* - *Painting* functions. Selecting 2, 4 or 8 multiplies the current brush size (as selected in the *Painting* menu's *size* box or within the palette menu) by that number, to create the new brush.

2

Doubles the current brush size.

4

Quadruples the current brush size.

8

Produces a brush eight times larger than the currently selected size.

density

Defines how much paint is to be deposited at any one time with the currently selected brush.

Density selected allows the operator to define pen-pressure sensitivity within a 0-100% range. Remaining on the default range of 0-100%, transparent colour is seen at 0% pen pressure and full-strength colour at 100% pen pressure.

Density unselected offers a full pressure brush. The opacity of the full pressure brush can be adjusted within a 0-100% range.

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rand

Is a secondary menu which appears after the pen pressure boxes have been activated for *density*, *size*, *mix* or *angle*. *Rand* is used with the adjacent numerical box to set the required randomness of the selected option. For example, if a rand setting of 25 is used in conjunction with a brush size of 100, the current brush will vary in size within a 25% margin (ie the largest brush size would be 125 and the smallest would be 75).

mod

Is a secondary menu which appears after the pen pressure boxes have been activated for *density*, *size*, *mix* or *angle*. *Mod* is used with the adjacent numerical box to set the required variation of the selected option. For example a mod setting of 100 (to be used in conjunction with the size feature) would produce the smallest brush stamp (0) at minimum pen pressure and the largest brush stamp (100) at maximum pen pressure.

period

Appears as an option with *rand* and *mod* to offer a user definable period of brush stamps over which the effect is applied. For example, a mod setting of 100, with 0-100% density and a period of 10 will cause a controlled change in the density of colour over a period of 10 brush stamps.

f

Frame/field (f) repeat which appears to the right of the *rand* box offers an additional control. This function, when selected, reproduces the *rand/mod* settings in the first horizontal line of the image and recreates these effects across the two fields that constitute an image.

I

Line (I) repeat which appears to the right of the *mod* box offers an additional control, resetting the *rand/mod* values occurring in the first horizontal line of the image on each subsequent line.

size

Defines the size of the brush in relation to pen pressure.

If the *size* box is selected, two numerical boxes will appear to the right of the menu bar for the user to define the maximum brush size associated with maximum pen pressure, and the percentage of the maximum size selected.

If the *size* box is unselected the pen size can be adjusted by tapping on the numerical box to the right of *size*. This will allow a single brush size to be used regardless of pen pressure applied.

mix

When selected allows another colour to be chosen to mix with the current pen colour. A current pen colour is selected and deposited into the colour pot next to *Painting*, while a second colour is selected from the palette or picture area and deposited into the colour pot next to *mix*.

This function can be used in combination with the pressure sensitive boxes (such as *rand* and *mod*).

angle

Allows the user to define the rotation of the custom brush stamps (this is not applicable with profile brushes). The two associated numerical boxes can be used to control the rotation on a pen pressure basis.

Angle can also be used in combination with *rand*, *mod*, *f*, *I* and *twist*.

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trk

When selected, track (*trk*) allows the angle of the brush stamp to follow the direction of the pen movement.

twist

Used only in conjunction with *angle*, *twist* sets a number of degrees to add to each successive brush stamp on a pen pressure basis.

spray

Allows the active custom brush to be randomly splattered over a circular area.

area

Using *area* defines the area of the spray circle, which can be fixed or variable.

min

Controls the size of the smallest brush stamps as a percentage of the maximum value in the size numeric box (or the size set by the pen pressure if the *size* box is highlighted).

orig

Original (*orig*) returns the brush currently being modified back to its original setting. This function also works in conjunction with *size*, *density*, *mix* and *angle*, where associated numeric values will be altered to defaults where appropriate, and all varying characteristics will be turned off.

edit

Used to create and modify profile and custom brushes.



See Chp 2 - “Custom Brushes”

new

Used in conjunction with *edit* to create a profile or custom brush.

profile

Used with *edit - new* for the creation of a profile brush.

cutout

Used with *edit - new* to save a custom brush which has already been created in *draw mask*.

magnify

Used with *edit* to alter the magnification of a custom brush. The minimum default offered is 1.00 and the maximum is 3.00. Magnification remains in proportion so that brush shapes do not start to overlap.

spacing

Used with *edit* to alter the gaps between each brush stamp of a custom brush. The spacing function is measured in % terms and allows each brush stamp gap to be increased/decreased over a 0.5%-500% range.

update

Allows any changes made to a custom brush to be saved.

lose

Used in conjunction with *edit* to delete a brush from the brushes roller bar. If the brush to be deleted has previously been saved, *lose* will delete the brush from the roller bar but not the hard disk.

rename

Enables the user to retitle a brush name in the roller menu. This action automatically saves the retitled brush name to the hard disk.

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del

Used in conjunction with *edit - new - profile* when wishing to remove individual marker points on the linear graph for profile brushes.

all

Used in conjunction with *del* to remove all marker points on the linear graph for profile brushes.

pickup

Copies the main image (which then sits on top of the copy) allowing the user to 'pick up' pixel colours from the copied image and use them as brush stamps as the pen travels over the main image. Using a small brush this function will result in an image similar to that of the original, while a larger brush will distort the image.

vary

Continues to pick up each new colour that the pen encounters from the current image, therefore varying the current pen colour.



See Chp 2 - "Custom Brushes"

copy

Enables image content to be copied from one part of the image to another, with any size or type of brush.

Tapping down on the picture area allows a box to be drawn out. A second tap defines the box which shows where *copy* will operate from and to; ie the opposing corners specify 'source' and 'destination', from the first and second pen taps respectively.

The *mask* can be used to protect selected areas of the 'current image' when applying the *copy* brush.

wash

Alters the chrominance (colour) content of an image while leaving the luminance detail (shade or density) unchanged. A colour is applied as a dilute solution and so *wash* can be used for example, to mimic delicate, water-colour illustration techniques.

Note: Applying black, grey or white as a *wash*, will reduce an image to monochrome.

shade

Alters the luminance (or density) of those areas of the 'current image' to which it is applied, without affecting the colour component (the chrominance).

The current pen colour will have no chromatic significance, but represents a shade which will be either lighter or darker than the area to be altered. Continued application of the *shade* brush will balance the image to the luminance selected.

Note: Used in combination with the *wipe* function, the luminance (*shade*) of the entire image can be altered at the same time.

smudge

Smudge operates as if the colour or 'paint' of which the 'current image' is composed, has become 'wet'. This brush type allows a variety of creative effects to be generated, including for example, selective motion blurs.

Note: Applying *smudge* with either continuous outward or continuous inward strokes, will produce different results.

restore

Enables the current cutout to be restored, by painting through the 'current image' with the selected brush type. The *restore* can be constrained by the mask.

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The selection of '+' or '-' defines whether the pen will add or remove the *restore* image. The 'add' or 'remove' functions can also be selected by toggling the hand unit left or right, respectively.

Selecting 'V' (to the right of the '+' and '-' functions) display's (ie 'views') the *restore* image in full, in its current position for as long as 'V' is selected.

Restore also recalls the following sub-menu functions:

finish

Permanently applies areas of restored image to the 'current image'. If *finish* is not selected prior to *restore* being de-selected, any changes made up to that point will be lost.

and mask

Selecting *and mask* and then *finish* will create a mask of the area of restored image and add this to the 'current mask'.

remove

Selecting *remove* and then *finish* will remove the area of restored image from the 'current mask'.

rev paint

Instead of the permanent application of colour, the *rev paint* function (reversible paint) enables colour to be added or removed before it is fixed onto the 'current image'. The ability to add or remove paint is controlled by the selection of '+' or '-' (which can also be selected by toggling the Hand Unit left or right).

The *finish*, *and mask* and *remove*, functions described below (see **rev black**, *below*), are also recalled with the *rev paint* function.

rev black

‘Reversible black’ allows the black plane of the ‘current image’ to be added to or removed from, depending on the current menu selection of ‘+’ or ‘-’ (these are also selected by toggling the Hand Unit left or right).

finish

Finish is selected to permanently apply any changes to the ‘current image’ made by the application of *rev paint* or *rev black*.

and mask

Selecting *and mask* and then *finish* will permanently apply the black added and will also create a *mask* of the added black, incorporating this into the ‘current mask’.

remove

Selecting *remove* and *finish* will permanently apply any black added and will also remove that area of black from the ‘current mask’.

Note: When using the *rev paint* or *rev black* functions, button 4 on the Hand Unit will display the current image through the *zigzag* control with the current *zigzag* parameters, as defined in *Colour - curves - grey - zig*.

ctl paint

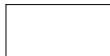
Allows the LUT selected under *photo fx* to be applied to the pen when in the *Painting* menu. The LUT being used is displayed in a blue box next to the *ctl paint* box.

wipe

Wipe is used to permanently wipe or paint over, the current image. The *wipe* function is constrained by the *mask* if *mask* is selected.

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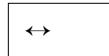
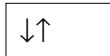
Note: *Wipe* will automatically switch application, depending on the function chosen; ie for *draw - mask* and *draw - black* it acts as *wipe - mask* and *wipe - black* respectively. If neither of these are selected then this function will permanently 'wipe' (paint over) all or part of an image with the colour in the associated colour pot.



This colour pot (to the right of *wipe*) determines the colour that the screen will be 'wiped' to.



Selecting *wipe - all* will wipe the whole image with the colour currently in the colour pot
(Note: If the *airbrush* is currently selected, using a density of less than 100% will produce a *wipe* of the same density).

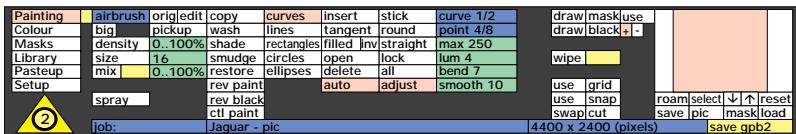


The two boxes containing horizontal and vertical arrows allow gradation of a colour or *mask*, either horizontally or vertically.

GRAPHICS

Description

The *Graphics* functions provide a facility to produce traditional geometric items; ie curves, lines, rectangles, circles and ellipses.



A CURVES

The *curves* sub-menu functions allow 'Flexi-curves' to be generated using Bezier curves and tangents.

insert

Allows new nodes to be created anywhere on an existing *curve*. In practice it is advisable to use as few nodes as possible, because complicated *curves* can be difficult to modify.

tangent

When selected, the segments that make up the curve can be controlled by tangents and normals connected to the nodes of each *curve* segment.

The position of the tangent/normal cross on the node controls the start/stop position of *curve* segment. The length of the tangent or normal, controls the amplitude of the *curve* segment.

Touching the end of a *normal* allows it to be moved, so affecting the line passing through the node in both amplitude and direction.

Touching the end of a *tangent* affects only the *curve* emanating from that side of the node.

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filled

This will fill the current *curve* (solid) with the mask or the colour on the end of the pen. Any 'open' *curves* will be automatically closed when *filled* is used.

Note: This function follows the Postscript clockwise/anti-clockwise winding rule and can be used in conjunction with the *inv* function to generate holes within a filled curve (*see inv below*).

inv

This is the abbreviation for 'invert'.

The *inv* function inverts the direction in which an individual *curve* has been drawn (ie clockwise or anti-clockwise) and can be used in conjunction with *filled* to generate holes within a '*filled-curve*'.

To generate a hole within a '*filled-curve*', one *curve* is defined within the boundary of another, while ensuring that both are drawn in the same direction (ie clockwise or anti-clockwise).

By then selecting '*inv*' and tapping anywhere on one of the *curves*, the direction of the *curve* selected will be inverted and the area within the *curve* will be emptied of mask or colour as appropriate.

open

Curve segments generated between nodes are normally closed; ie the two open ends of the drawn *curve* are closed automatically by a *curve* segment joining them. The *open* function leaves the two ends open.

delete

By selecting *delete* and by then pressing down on an individual node, that node will be deleted causing the two adjacent *curve* segments to form a single segment.

By selecting *delete* and by then pressing down on a *curve* between two node points, the whole *curve* will be deleted.

Because it is not always possible to place the pen actually on a *curve* (because of the number of points generated), the currently selected *curve* can be deleted by selecting *delete* and by then pressing on the *curve* box (see the blue *curve* function, below).

The *delete* function does not affect *curves* that have been previously stuck down.

Note: If *auto* is highlighted, selecting *delete* will turn off the *auto* function and its associated sub-menu boxes.

auto

Used to automatically generate a *curve* within or around an image.



See Chp 2 - "Automatic Curve Generation".

stick

Permanently 'sticks' down the completed *curve*, allowing a new *curve* to be generated if required.

Note: Once a *curve* has been stuck in place it cannot be edited or removed unless in *mask* mode, although a copy is produced directly over the original which can be manipulated as required.

round

This function, the opposite of *straight*, rounds the *curve* segment emanating from a node.

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straight

Straightens the *curve* emanating from the selected node (the *curve* start point). Both nodes (start and stop), must be set to *straight* for the *curve* to become a straight line.

lock

This locks a node in position so that the curve emanating from it is not affected by any modifications to adjacent nodes.

Nodes can be unlocked by selecting *straight* or *round*.

all

This selects all the 'node' points or *curves* that are not stuck down and applies the appropriate functions to them ie:

delete - *all* removes all nodes, therefore deleting the current *curve* and any others in use.

round - *all* rounds the *curve* segments emanating from all nodes. The same effect is achieved by selecting *round* and by then tapping anywhere on the *curve*, apart from the nodes.

straight - *all* straightens the *curve* segments emanating from all nodes. The same effect can be achieved by selecting *straight* and by then tapping anywhere on the *curve* (apart from on the nodes, as this will only cause the individual node to become straight).

lock - *all* locks all nodes, so that modifying any one node will not affect any other.

curve 0/0

Indicates which *curve* out of the total number of *curves* on screen, is currently selected.

Curves are numbered in order of generation. The currently selected *curve* is the curve to which the pen is or was, last nearest to.

points 0/0

Indicates which node the pen is or was, last nearest to, out of all the nodes for the *curve* currently selected. The nearest node will also be highlighted.

adjust

Adjust allows the re-calculation of an existing *auto* generated *curve*, from the second stage process; ie from the original starting point and therefore the original luminance value.

max

Max defines the maximum number of node points to be generated for an ‘automatic curve’. An “abort” box replaces the *points* box, if this number is exceeded. The *max* number has a default setting of 250, but is user definable in the *auto - adjust* function.

lum

Lum defines the luminance band to be used as the basis for ‘automatic curve’ generation. The *lum* value is selected by pointing to one point of the image, or by finding a range of luminance’s, by dragging the pen across an area of the image.

The origin point for a range of luminance’s is the first point to the right of the last pen position on screen whose luminance is outside the defined band.

The *auto* function will find similar luminance values in the defined *lum* band to trace a path back to the origin point.

bend

Bend, by working in conjunction with the *smooth* function, defines at how sharp an angle on the curve, a node is to appear. The system will initially define the *bend* value when a *curve* is generated, but this value can be altered by the user with *auto - adjust*.

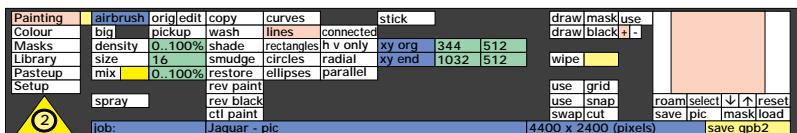
Graphic Paintbox 2

smooth

This 'smoothes' the *curve* across the number of pixels defined by the value in this box. The system will initially define the value by default when a *curve* is generated, but this can then be altered by the user in *adjust* mode.

B LINES

Selection of *lines* allows individual straight lines to be drawn in any available brush size and type. This facility can be used in any place where a traditional ruler, set-square or T-square would be used.



lines

Lines can either be drawn using the pen or numerically using *origin* and *end* values.

connected

Selection of *connected* will join one line to another.

From an origin point, the second tap down will secure the 'end' of a line. This also tacks down the start of a second line, and so more connected *lines* can be generated. This process can continue until the pen is swiped off screen.

Note: Lifting the pen out of proximity of the Tablet will break the connected line.

hv only

This constrains the drawing of lines, whether separate or connected, to the horizontal and vertical.

radial

This allows *lines* to be drawn from a common origin.

GRAPHICS

Swipe off the menu, press once to define the origin and then again to define the 'end' of the *line*. Keeping the pen in proximity further line ends can be established with each originating from a common centre.

xyfix

The values in the green 'x' and 'y' boxes, to the right of *xyfix*, define the centre point of the radial line to be drawn.

radang

The value in the green box, to the right of *radang*, defines the angle of the radial line to be drawn.

parallel

This allows *lines* to be drawn in parallel to each other.

Swipe off the menu, press once to define the origin and then again to define the 'end' of the line.

By keeping the pen in proximity, further lines can then be drawn in parallel to the first by pressing the pen down and creating the next origin and then 'end' points.

stick

When the desired *line* has been produced, it is permanently stuck down using the *stick* function. An identical *line* will then be displayed over the top of the permanent *line*.

xyorg

The values in the green 'x' and 'y' boxes, to the right of *xyorg*, define the origin of the *line* to be drawn.

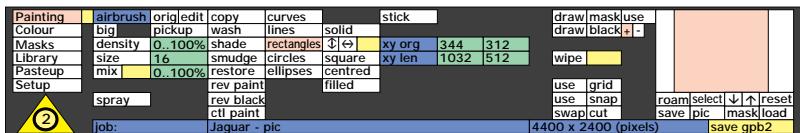
xyend

The values in the green 'x' and 'y' boxes, to the right of *xyend*, define the end of the *line* to be drawn.

Graphic Paintbox 2

C RECTANGLES

Rectangles can be drawn as open, solid, graduated or filled. Each of these can be constrained to a square and be centred.



solid

The resultant *rectangle* is displayed as a solid area of the current pen or mask colour, as appropriate.

Note: *Solid* produces a hard edged block of colour, whereas *filled* uses an edge defined by the current brush type.

By selecting *airbrush* to use with a *solid* rectangle, varying the percentage of the brush below 100% will produce a rectangle that is filled with the required colour at that percentage level.

Whereas a 100% *airbrush* will produce a constant full pressure fill, an airbrush of 50% produces a *solid* fill with half the level of opacity; ie image detail may be seen through the fill. Where *solid* rectangles of different *airbrush* densities are overlaid, the different densities will mix.



The boxes containing vertical and horizontal arrows allow the graduation of a *rectangle* both vertically and horizontally. The level of graduation is defined by the colour deposited in the box next to these arrow boxes, and the colour currently on the end of the pen. If *draw* and *mask* are active, the luminance values of the two colours will control the graduation.

square

This constrains the *rectangles* functions to a square format. The square is centred around the initial pen position on the screen.

centred

This allows the rectangle to grow from a centre point defined by the pen.

The first pen press places the centre of the rectangle, with a subsequent press indicating the limit of the desired rectangle. The rectangle will be drawn when this second pen press is made.

filled

The *filled* function provides the facility to draw boxes with the soft edge of the currently selected brush. This 'soft' edge provides a gentle transition between rectangle and image, as opposed to the 'hard' edge of the *solid* function.

stick

When the desired *rectangle* has been produced, it is permanently stuck down using the *stick* function. An identical *rectangle* will then be produced over the top of the permanent copy.

xyorg

The values in the green boxes to the right of *xyorg*, indicate the origin points of the current rectangle in the 'x' and 'y' axis respectively. By altering these values the rectangle can be moved.

Note: The origin points can not be altered for a *rectangle* that has been stuck down.

xylen

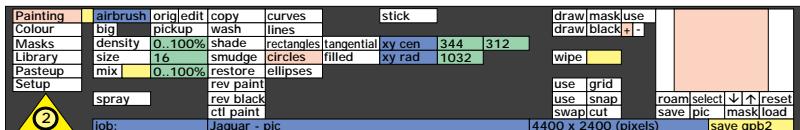
The values in the green boxes to the right of *xylen*, indicate the width and depth of the current *rectangle* in the 'x' and 'y' axis respectively. By altering these values the width and depth can be extended or reduced.

Note: As a rectangle is drawn by hand on screen, the dimensions in the x/y boxes will alter with the rectangle position or size, to allow accurate placement and scaling.

Graphic Paintbox 2

D CIRCLES

The *circle* facility allows solid or open circular areas of paint or *mask*, to be applied to the 'current image'.



tangential

Tangential allows circles to be drawn using two points which will define the diameter.

The first pen press establishes a start point and as the pen is drawn out from that point, the circle appears. Pressing down again will create the circle.

xyfix

The two green numeric boxes to the right of this function define the start point of the circle, in the 'x' and 'y' boxes respectively.

radang

Defines the angle at which the second line will be drawn out to define the width of the circle.

filled

Fills the 'current circle' with the current pen colour, bounded by the current brush type.

stick

Applies the current circle permanently to the 'current image'.

xycen

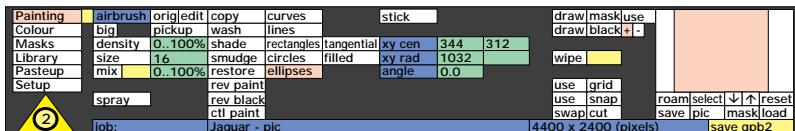
Defines the centre of the circle to be drawn in the 'x' and 'y' axis respectively (ie the two green boxes to the right of this box).

xyrad

Defines the radius of the *circle* to be created.

E ELLIPSES

The *ellipse* facility allows solid or open ellipse shapes of paint or *mask* to be applied to the 'current image'.



tangential

Tangential allows ellipses to be drawn using two points to define the axes.

The first press of the pen establishes one point and as the pen is drawn out the *ellipse* appears.

The angle of the axes can be altered to rotate the *ellipse* about the original pen press.

xyfix

The two green boxes to the right of *xyfix*, define the centre of the *ellipse* to be drawn, in the 'x' and 'y' axis respectively.

filled

Selection of *solid* fills the current *ellipse* with the current pen colour, bounded by the current brush type.

stick

Applies the current *ellipse* permanently to the 'current image'.

xycen

The two green boxes to the right of this box, define the centre of the *ellipse* to be drawn, in the 'x' and 'y' axis respectively.

xyrad

The two green boxes to the right of this box, define the radius of the *ellipse* to be drawn, in the 'x' and 'y' axis respectively.

angle

This enables the angle of the radius to be altered numerically rather than manually.

Graphic Paintbox 2

CUTOUTS

Description

The *cutout* menu allows a selected image or part of an image (produced with the *cut* function) to be used as a cutout, re-sized, positioned and then permanently stuck into the image currently in the system's working store.



If the *cutout* function is selected before a *cutout* exists (ie before a *cutout* is created with the *cut* function, or before a *cutout* has been recalled from the *Library*), the screen will lock and the *cutout* box will be replaced with a red box stating "None"; ie there is no 'current cutout' to manipulate. Press down to unlock the menu.

Note: Multiple cutouts are only available with the large framestore option.



See Chp 2 - "Cutouts"

cutout

The *cutout* function displays the 'current cutout' item; ie either an item recalled from the *Library* or a section of the 'current image' that has been copied for use as a cutout.

The current cutout is determined by the current layer number:

1

This figure determines a cutouts 'layer' number.

The 'layer' number is between 1 and 'n', where 'n' is the total number of current cutouts.

Graphic Paintbox 2

full res

This will re-display the 'current image' as a full resolution image.

hid

This function allows layers to be stacked and hidden from view. It can also be used in conjunction with *del - all* to delete all hidden layers.

del

This is used to remove a cutout or selection of cutouts from those currently available.

Highlight *delete* and then either tap on the cutout to be removed or on the number of the 'current cutout' (ie the green numeric box to the right of *cutout*).

all

Selecting *delete - all* will remove all the 'current cutouts'.

sav

Saves the current cutout.

many

1

When multiple cutouts are to be manipulated and processed, *many* is selected.

The blue box to the right of *many* details the total number of cutouts currently loaded; ie images 'fetched' as cutouts or cutouts created with the *cut* function. This number will automatically update with each addition or be decremented when *delete* is used.

Selecting *many* also recalls the *priority* boxes:

priority

1

The green *priority* box indicates the current 'layer' of the 'current cutout'.

A cutouts 'layer' number indicates which cutout will be displayed in front of another; ie a cutout with *priority* 3 will appear in front of cutouts with *priority* 2 and 1, but *priority* 4 would appear in front of all of these.

Note: Selecting *priority* will recall the *down*, *up*, *bottom*, *top*, *under* and *on* menu functions:

down

up

Decreases or increases the 'current cutouts' *priority* by a factor of 1 with each selection of *down* or *up* respectively.

bottom

top

Moves the 'current cutouts' *priority* to the lowest or highest *priority*, the lower limit being 1 and the upper limit defined by the total number of 'current cutouts'.

under

on

Moves the 'current cutouts' *priority* to one less or one more than that of a second cutout selected with the pen.

stick

The action of *stick* is to permanently fix any cutout in the position and attitude determined by the other *cutout* functions.

Note: If *draw - mask* is enabled when *stick* is selected, only the *mask* of the cutout will be stuck down. If *use - mask* is enabled the cutout can only be stuck in areas on the current image where the *mask* is not applied.

When many is 'on', all the 'current cutouts' will be stuck.

Graphic Paintbox 2

style

Activates a second roller menu containing a number of effects. These effects can only be viewed after sticking the cutout, with the desired effect, to the background.

outline

Activates a fixed-size keyline around the edges of the cutout's mask, whatever shape that may be.

surround

Surrounds the cutout with a fixed-size border, which is defined in the associated colour box.

shadow

Enables a drop-shadow of variable direction, colour and opacity to be applied to the cutout.

inc

Rotates the shadow direction clockwise in 45 degree steps.

dec

Rotates the shadow direction anti-clockwise in 45 degree steps.



Sets the shadow direction to the north.



Sets the shadow direction to the north-east.



Sets the shadow direction to the east.



Sets the shadow direction to the south-east.

CUTOUTS

PAINTING



Sets the shadow direction to the south.



Sets the shadow direction to the south-west.



Sets the shadow direction to the west.



Sets the shadow direction to the north-west.



Allows access to the numerical keypad.



See Chp 1 - “Keyboard”

emboss

Enables the current cutout to be applied as if moulded in relief to the current image.

lightbox

Combines two images based on the transparent light through two colours superimposed. This is the same effect as would be achieved by superimposing two transparencies on a lightbox.

addition

Adds the light values of the combined images.

grain

Combines the cutout and background using the process that is used for adding grain to an image.

Graphic Paintbox 2

+ mask

Allows the mask component of the cutout to be stuck into the image as well as the picture content.

When the *cutout* and mask are stuck down there is an additional selection of *add* or *rem*:

+

Allows the *mask* component of the *cutout* to be added to that of the background image.

-

Allows the *mask* component of the *cutout* to be removed from that of the background image.

100%

Sets the percentage density of the *cutout* before it is stuck down.

This has the effect of applying the cutout to the image as if through an appropriate percentage *mask*; ie 100% is fully opaque and 0% is fully transparent.

Values between these two extremes will produce a linear graduation from opaque to transparent.

rename

Allows a cutout to be retitled.

orig

Resets the cutout's size, position and angle back to its original settings.

home

Places the centre of the *cutout* in the 0, 0 position of the *job* (or of the page if the *page* function is enabled).

If *in grid* is selected, *home* places the *cutout* in the top-left corner of the selected *grid-cell*.

crop

Allows the edges of a *cutout* to be cropped to remove unwanted image information.

For example, *crop* could be used to remove the sprocket holes from a scanned 35mm slide.

The *crop* that is to be applied to the *cutout* is controlled by the *l*, *r*, *t* and *b* numeric boxes.

Once applied, the *crop* box turns blue to indicate that the set-up has been applied.

Note: If the image is rotated and *crop* is applied, the cropped areas will follow the original image.

l

Controls the left-hand edge *crop*. A value of 0 indicates that no *crop* is to be applied. Positive values *crop* into the *cutout* from the left.

r

Controls the right-hand edge *crop*. A value of 0 indicates that no *crop* is to be applied. Positive values *crop* into the *cutout* from the right.

t

Controls the top edge *crop*. A value of 0 means that no *crop* is to be applied. Positive values *crop* the *cutout* from the top.

b

Controls the bottom edge *crop*. A value of 0 means that no *crop* is to be applied. Positive values *crop* from the bottom.

reset

This *resets* the *crop*s to default settings.

Graphic Paintbox 2

grid

In *Pasteup* this function is used to recall a window through which the cutout can be seen.

sub

Activates yellow crosswires for the user to sub-divide the active area of the main image.

l

Allows the left-hand edge of the defined grid to be cropped.

r

Allows the right-hand edge of the defined grid to be cropped.

t

Allows the top edge of the defined grid to be cropped.

b

Allows the bottom edge of the defined grid to be cropped.

xpos

This allows the horizontal position of the cutout to be adjusted numerically. The 0 value positions the centre of the *cutout* at the centre of the 'job' (or of the 'page' if the *page* function is enabled). Positive values move the *cutout* to the right and negative values move the *cutout* to the left.

ypos

Ypos is used to alter the vertical position of the *cutout* numerically. A value of 0 positions the centre of the *cutout* at the centre of the 'job' (or of the 'page' if the *page* function is enabled). Positive values move the *cutout* up and negative values move the *cutout* down.

angle

This allows the *cutout* to be rotated in increments of degrees and 10ths. A value of 0 means zero rotation. Positive values rotate the *cutout* clockwise and negative values anti-clockwise. Rotation is about the centre of the *cutout*.

magn

Magn is an abbreviation for magnification. This is used to re-size a *cutout*. A value of 100% means normal size (ie no change from original *cutout* size). Values greater than 100% expand the *cutout* and values less than 100% reduce the *cutout*.

x 100

The horizontal size of the *cutout* can be altered by changing this value. Values greater than 100% expand the *cutout* and values less than 100% reduce the *cutout* size.

y 100

The vertical size of the *cutout* can be altered by changing this value. Values greater than 100% expand the *cutout* and values less than 100% reduce the *cutout* size.

flip

This will invert the 'current cutout' left to right.

find

Moves the *cutout* to the centre of the screen.

tumble

This will invert the 'current cutout' top to bottom.

solid

Allows the area outside the extents of the 'current cutout' to be filled with *solid* colour.

Graphic Paintbox 2

sub

Allows grid lines to be defined within the 'current cutout' menu.

shape

Shape applies the 'shape' of the *cutout* to the background image using the colour currently on the pen and with a density determined by the current percentage box value. This can be used to create a drop shadow for the cutout, for example and the combination of the *cutout*, *shape* and *black plane* functions are useful to create 'black only' shadows.

cut

The *cut* function is used to create a *cutout* or 'copy', of just a specific part or all of the current image. The cutout is then held in a temporary buffer and is re-called when the *cutout* menu function is selected.

Selecting *cut* on its own and moving the pen into the image area will provide a yellow cross wire cursor with which to define a rectangular area of the image to be *cut*; a specific area of the current image to be duplicated.

cut

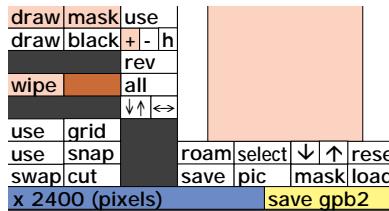
all

When the *all* box is selected with the *cut* function, the entire current image in the working store will be copied or *cut*.

MASK MENU

Description

The *mask* is the system's internal key, and is a medium through which paint, graphic items or cutouts are applied to the underlying background image.



The *mask* is a multi-level medium, producing effects from fully transparent to fully opaque, dependent on the density of the *mask* and the techniques used.

Note: The *mask* medium is always displayed as semi-transparent for ease of use and for the ease of positioning *cutouts*.

Operation

draw

Selecting the *draw* box to the left of *mask*, recalls further menu functions to add to or remove from the 'current mask'. When *draw* is selected the retouching cursor changes to the *mask* colour (normally red).

Note: Pressing left or right on the Hand Unit will toggle between the '+' and '-' functions.

+

Allows the *mask* medium to be added to any part of the image area using any brush type or by applying graphic shapes.

-

Allows the *mask* medium to be removed from any part of the image area using any brush type or by applying graphic shapes.

Graphic Paintbox 2

h

This allows the *mask* to be displayed as a high contrast black and white image. The edges of the image area can be viewed by pressing down on the *h* box and dragging the pen. Pressing button four on the Hand Unit will also display the current mask as a High contrast image.



See Chp 1 - "Basic Principles".

mask

Display's the current *mask*. The *mask* may be displayed, whether in use or not. The *mask* medium is slightly transparent so that the image can be seen underneath the *mask*. The *mask* medium colour is determined by the colour pot to the right of the *wipe* box.

use

This turns on the *mask* to protect the underlying image. When using the *mask* as a masking medium, select the *use* box, select the required process from the appropriate menu and, using the *mask* as a conventional *mask*, work as normal.

rev

Selection of the *rev* box will reverse the *mask* producing a negative of the *mask*; ie previously 'masked' and 'unmasked' area of image are reversed.

wipe

all

Selecting *wipe - all* will apply or remove *mask* over the entire image area, depending on the selection of '+' or '-'.

The colour pot to the right of *wipe* determines the current *mask* colour (normally red).

MASK MENU



These allow gradation of the *mask* medium,

either horizontally or vertically.



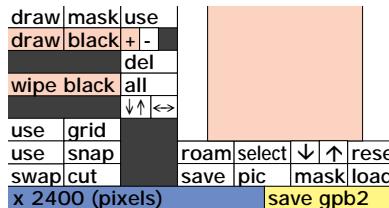
See Chp 4 - "Masks".

Graphic Paintbox 2

DRAW BLACK

Description

Draw - black gives access to the black plane element of an image; ie the 'k' element of a 'cmyk' image. The *draw-black* functions are only accessed with the 'cmyk' option installed.



Draw black works in conjunction with the '+' and '-' functions, to add or remove black, to or from the whole or part of an image.

Note: The 'cmyk' readout in the palette will only show the black contained in the 'normal' image if the *black* function is not turned on, but will show the combined black value, from the image and the black plane, when this function is activated.

Operation

draw

This gives access to the black plane, with black manually added or removed (ie painted 'in' or 'out') with the selection of '+' or '-'.

black

The *black* element is turned on or off with this box (ie ie *black* is 'on' when the box is pink). If there was no black plane, one will be created when this box is turned on.

+

The plus symbol is highlighted to add black.

-

The minus symbol is highlighted to remove black.

Graphic Paintbox 2

Note: Button 4 on the Hand Unit will show the current black plane over a white background.

Pressing the thumb switch left or right will toggle between the '+' and '-' functions.

del

The *del* function (delete), is used to remove black.

When selected, any black plane will be removed from the 'current image' (although not from the 'current cutout') when *-black* is pressed.

wipe black

When combined with the '+' (add) or '-' (remove) boxes, areas of the black plane can be wiped with or wiped of, the black plane element.

This allows either the entire gradation of an image from black to white, or gradation within a defined area, in a horizontal or vertical direction, if the appropriate luminance is placed in the colour pots.

Alternatively this can remove any gradation currently applied to the image when used in conjunction with *all*.

↓↑

↔

These allow gradation either horizontally or vertically, when used with *wipe black*.



See Chp 2 - "Black".

all

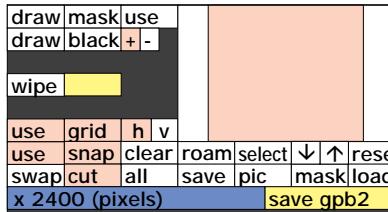
Used in conjunction with the horizontal or vertical arrow boxes, the *all* function will graduate the entire image in the direction indicated.

Selecting *wipe black - all* will wipe all black content from the current image, irrespective of the '+' or '-' boxes currently selected.

GRID MENU

Description

The *grid* facilities allow graphics and *cut* functions to be controlled in a regular, mathematical manner. *Grids* are defined within the *Setup - grid* menu and their use is controlled by a group of boxes to the extreme right of the menu.



See Chp 3 - “Grids”.

Operation

use

Allows any grids currently defined in the *Setup - grid* menu to be used. This turns the grids function ‘on’ and ‘off’ as required.

grid

Allows any grids currently defined to be displayed. Their colour is normally blue, but can be changed using the colour pot in the *Setup - grid* menu.

h

Allows any horizontal grid lines to be used. If enabled, and the *v* box disabled, only the horizontal grid lines will be used to constrain images and graphics elements.

v

Allows any vertical grid lines to be used. If enabled, and the *h* box disabled, only the vertical grid lines will be used to constrain images and graphics elements.

Graphic Paintbox 2

snap

When this box is selected and graphic elements such as *lines*, *rectangles* and *curves* are drawn, their positions and key points are remembered by the system even after they are stuck down.

The *snap* 'point's generated during the session can be used to quickly align further images or graphics elements to those currently stuck down. The cursor turns blue when it is on a *snap* point or line.

clear

Individual *snap* 'points' (and any lines emanating from them) can be removed by pressing *clear* and by then pressing on the 'point' to be removed.

clear

snap

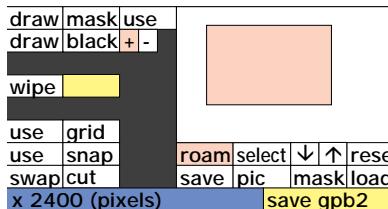
All *snap* 'points' can be removed by pressing *clear* - *snap*.

ROAM

Description

The *roam* facility allows an image or specific area of image, to be expanded linearly, from nominal up to the maximum magnification, where only a few pixels are displayed.

Fine detail images can therefore be produced and modified at very high magnification.



Operation

roam

This switches the *roam* function on or off and display's the *roam* map (as shown above in the drawing above; ie far right of the menu display). The grey rectangle gives the relative position of the viewed section of image with respect to the full image (ie the remainder of the box area).

Note: Fine brush sizes should be used at very high magnifications.

Select

Enables an area of the 'current image' to be zoomed into, the area defined using cross-wire cursors. These cursors are used to define the extent of a rectangle over the image, which will then be blown up to full screen size.



The 'up' facing arrow increases the size of the viewed part of the image and the 'down' arrow decreases the size.

Graphic Paintbox 2

These functions can also be controlled from the Hand Unit, by pushing 'up' or 'down' on the toggle control.

reset

This will *reset* a 'zoomed' image back to a full image view.

SWAP

Description

swap

The *swap* function provides a facility for exchanging the 'current image' for the 'current cutout'; ie the 'current image' becomes the cutout and the cutout becomes the 'current image'.

Note: The cutout / current image information is held in a **temporary** store. Information is **not** automatically saved to disk.

To apply the *swap* function, simply select the *swap* box. This will highlight in pink to indicate that it is active and will exchange the two images.

The exchange procedure is extremely fast and can be repeated as many times as necessary; ie Selecting *swap* again will toggle the 'current image' and 'current cutout' once again.

Note: If no cutout currently exists (ie if there is no image to 'swap' to), the *swap* box will be replaced with a red warning box stating "None"; ie no cutouts exist. The system will also temporarily lock at this point as processing cannot continue.

To unlock the menu, press down with the pen in the menu area.



See also "Temporary Buffer" in this chapter.

Graphic Paintbox 2

TEMPORARY BUFFER

Description

The temporary buffer is a store on disk, for holding copies of an image or mask detail. One of each item (ie mask or pic) can be held at any one time and then be reloaded at any stage.

The temporary store therefore offers a very efficient way of keeping copies of work in progress for example. Items saved in this buffer are saved permanently in that location, but will be overwritten whenever another item is stored to that location; ie when the *save -mask* or *save - pic* functions are next selected.

Operation

save

pic

The 'current image' can be saved (copied) in a temporary buffer for security, before any major processing is performed. This enables step-by-step modification while allowing the previous image step to be quickly restored if a mistake is made.

Note: This temporary buffer can only hold one image; ie the image in the working store when *save - pic* was selected. Selecting *save - pic* again will overwrite that image with the 'current image'.

save

mask

The 'current mask' can be saved (copied) in a temporary buffer for security before any major processing is performed. This enables step-by-step modification of a *mask* while allowing the previous *mask* step to be quickly restored if a mistake is made.

Note: This temporary buffer can only hold one *mask*; ie the *mask* in the working store when *save - mask* was selected.

Graphic Paintbox 2

load

pic

Will restore the image currently held in the temporary buffer (generated when *save - pic* was last selected), back to the working store. This action will over-write the existing image in the working store.

If the image being restored is smaller than the 'current job' settings, it will be positioned at the top-left hand corner of the page, at the 0, 0 position defined in the 'job' set-up.

load

mask

Will restore the *mask* currently held in the temporary buffer (generated when *save - mask* was last selected), back to the working store.

This action will over-write the existing *mask* in the working store.

Note: In the *Colour* menu, the current colour set up can be saved to the temporary buffer as *save - colour* and recalled with *load - colour* (*colour* replacing *pic* in the menu display) and the *selective* settings can be saved as *save - select* and recalled with *load - select* (*select* replacing *mask* in the menu display).

CHAPTER 2

COLOUR MENU

COLOUR

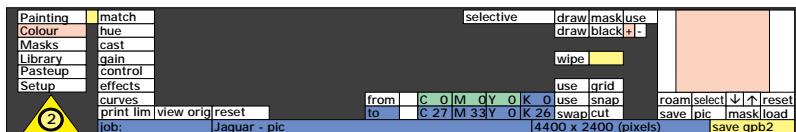
Graphic Paintbox 2

COLOUR MENU OVERVIEW

COLOUR MENU OVERVIEW

Description

The *Colour* menu allows the brightness, contrast and colour characteristics of an image to be re-defined, selectively or over the entire image. This allows images from different sources to be colour matched, allows the ambience (lighting and colour) of a scene to be changed and allows specific colour ranges to be modified.



See Chp 2 - “Colour Correction”.

Operation

match

Match produces a linear colour translation of all the colours to a new colour range. This new colour range is determined by two user selected colours that are loaded into the colour pots underneath the *from* and *to* boxes or numerically into the H° , $\%S$ and $\%L$ boxes.

hue

Controls the chrominance content of the image, allowing the saturation and hue to be altered.

cast

Allows the cast of the image to be altered using the Red, Green and Blue components independently.

COLOUR

Graphic Paintbox 2

gain

This will allow the brightness of the Red, Green and Blue components to be altered independently.

control

This allows the user to manipulate the colour cube to alter various aspects of the appearance of the image.

effects

Provides a variety of special effects facilities. These effects are *sharpen*, *blur*, *poster* and *map*.

curves

Allows manual adjust of RGB, Greys, CMY/CMYK (where applicable) and to build user defined colour corrections.

Note: The CMY/CMYK Colour - curves menu functions are only available when the 'CMYK' option has been separately purchased and installed.

print lim

Converts all the colours of the current image, into 'legal' print colours.

do all

Once the required parameters have been set-up for the selected process, selecting *do all* will action the process over the whole image, except in those areas where *mask* is applied.

do area

Do area is used when only a selected area of the current image is to be processed, as opposed to the whole image. The area to be processed is defined by a box cursor, limited by the application of *mask*.

COLOUR MENU OVERVIEW

COLOUR

orig

all

Provides a quick reset for any or all of the control boxes, to their original values; ie The values they had before the image was manipulated. After selecting *orig*, select the required control box *%cont*, or *%bright* for example, or *all* to reset all the controls.

show

Displays the original (un-processed) image, for comparison purposes. The original image will remain displayed for as long as the box is pressed.

selective

Selective allows a *mask* to be created automatically by the selection of specific colour ranges within the image.

The *mask* created can be used in conjunction with the colour correction functions to allow correction to be limited to a 'selective' area of uniform colour (ie the selected small colour range of an object).

The *selective* function will automatically use the current settings of the *automask* menu and any changes made within *selective* will automatically be copied back into the *automask* menu.

This allows the *mask* produced within *selective* to be committed and retouched manually if required.

less

When enabled, the range of colour to be used to create a *mask* can be decreased by pressing the pen in the appropriate area of the image (ie the area with the least required colour). Subsequent colour selection will reduce the range of colours that are to be used to determine the *mask*.

Note: The left-hand position of the Hand Unit thumb-switch enables the *less* function.

Graphic Paintbox 2

more

When enabled, the range of colour to be used to create a *mask* can be increased by pressing the pen in the appropriate area of the image (ie the area with most of the required colour). Subsequent colour selection will widen the range of colours that are to be used to determine the *mask*.

Note: The right-hand position of the Hand Unit thumb-switch enables the *more* function.

rev

Reverses the current *mask* defined by the *selective* set-up. This can be used where the area to be masked/unmasked is small or of a similar colour to other parts of the image.

softness

The *mask* generated using *selective* can be 'softened' to improve its quality. This can hide small deviations between the detected colour and the image colour and remove the 'halo' artefacts around a 'masked' area.

Placing the pen in the image area will produce a *hicon* (a high contrast black and white image) which will reflect the current *softness* value. This *hicon* will adjust with pen movement (ie as the pen moves up the screen the *softness* value increases, so the *hicon* will vary accordingly).

reset

This resets the values of *selective* colour detectors to their default settings (ie no detection and no *mask*).

undo

Appears whenever a change to the selected colours is made, and allows the last stage (only) to be restored.

COLOUR MENU OVERVIEW

Note: *Reset* and *undo* are also available from button 3 on the Hand Unit.

save

colour

The current *colour* menu settings can be saved in a temporary buffer by selecting *save - colour*. This allows the settings to be saved for security (before further changes are made) and to allow settings to be transferred to other images.

save

select

The current *selective* settings can be saved in a temporary buffer by selecting *save - select*. This allows the settings to be saved for security (before further changes are made) and to allow settings to be transferred to other images.

load

colour

Will restore any *colour* menu settings that are available in the temporary buffer (*save - colour*) and overwrite the current *colour* menu settings.

load

select

Will restore any *selective* settings that are available in the temporary buffer (*save - select*) and overwrite the current *selective* settings.

LUT

When the *colour* menu is selected, the blue information box at the base of the screen changes from displaying the resolution details of the current image to the details of the current Look-up Table (LUT).

COLOUR

Graphic Paintbox 2

Densitometer

The boxes towards the bottom of the *Colour* menu provide a densitometer that allows the colour on the pen to be displayed before and after colour correction (ie the top row of green menu boxes and the bottom row of blue menu boxes, respectively).

from	C 0	M 0	Y 0	K 0	use	grid
to	C 27	M 33	Y 0	K 26	use	snap
						swap
						4400 x 2400 (pix)

Note: The densitometer readings will, if the *black* function is enabled, be the original colour values plus the black values from the black plane.

from

Allows the source colour for the densitometer to be entered into the colour pot in the box to the right of the *from* box.

The *c*, *m*, *y* and *k* boxes to the right of the *from* box indicate the colour currently under the cursor.

Values can be entered numerically so that the effect of a colour can be seen in the colour corrected values.

to

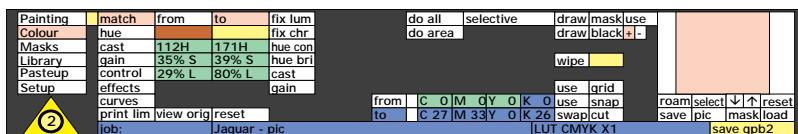
The colour pot to the right of this box indicates the colour that will be printed, according to the LUT selected.

The *c*, *m*, *y* and *k* boxes to the right of the *to* box indicate the ink values that will actually be printed taking into account the colour correction currently displayed.

MATCH MENU

Description

The *match* menu produces a linear colour translation of all the colours to a new colour range. This new colour range is determined by two user selected colours that are loaded into the colour pots underneath the *from* and *to* boxes or numerically into the *HSL* colour format boxes, below them.



Operation

from

Allows a 'source' colour to be entered into the associated colour pot, situated underneath this function. The *from* colour is unaffected by any of the other menu functions.

to

Allows the 'destination' colour to be entered into the associated colour pot, underneath this function. The *to* colour is affected as the *match* parameters are altered; ie *fix lum*, *fix chr*, *hue con*, *hue bri*, *cast* and *gain*.

H °

Sets the value of hue (in degrees) for the 'source' or 'destination' colour as appropriate.

%S

Sets the percentage value of saturation for the 'source' or 'destination' colour as appropriate.

Graphic Paintbox 2

%L

Sets the percentage value of luminance for the 'source' or 'destination' colour as appropriate.

fix lum

Matches the colour of the *to* ('destination') colour to that of the *from* colour ('source'), allowing only a chrominance change; ie hue, saturation and cast.

fix chr

Matches the colour of the *to* colour (the 'destination') to that of the *from* colour (the 'source'), allowing only a luminance change.

hue con

The 'hue - contrast' function matches the colour content of the *from* and *to* colours using the *hue* control and the luminance contrast control.

hue bri

The 'hue - brightness' function matches the colour content of the two colours using the *hue* control and the luminance brightness control.

cast

Allows a colour match to be performed on the colour cast of the image.

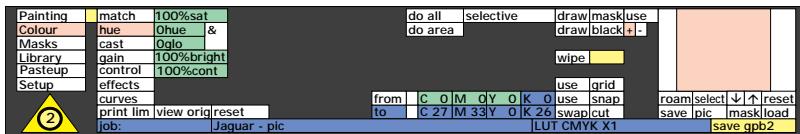
gain

Allows a colour match to be performed on the gain of the image.

HUE MENU

Description

Hue controls the chrominance content of the image, allowing the saturation and hue to be altered.



Operation

100% sat

This controls the saturation of the image. Values above or below 100% increase or decrease the saturation respectively. 100% is the normal value.

0 hue

Controls the image *hue*. Values above 0 rotate *hue* clockwise through 360 degrees.

0 glow

Glow compensates for different colour saturation's at different hue angles, by allowing the brightness of a colour to be altered as the *hue* is rotated (complementary colour effect).

If the *hue* is rotated by 180, a *glow* value of 180 will 'normalise' the new colours. It is suggested that this control is first tested using a colour chart or another known colour reference, to understand the results.

Graphic Paintbox 2

&

When highlighted, *glow* is automatically adjusted as the *hue* is altered.

100% bright

Controls the brightness of the image.

Values above 100% increase the brightness and values below 100% decrease the brightness. 100% is the normal value.

100% cont

Controls the contrast of the image.

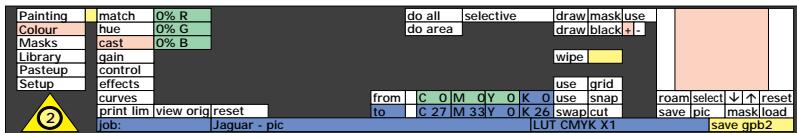
Values above 100% increase the contrast and values below 100% decrease the contrast. 100% is the normal value.

CAST MENU

Description

This function allows the colour cast of the image (ie the residual background colour that can differ between image sources), to be altered using the Red, Green and Blue components, independently.

Values above 0% increase the *cast* and values below 0% decrease the *cast*. 0% is the normal value.



Operation

0% R

This controls the Red cast of the image.

0% G

This controls the Green cast of the image.

0% B

This controls the Blue cast of the image.

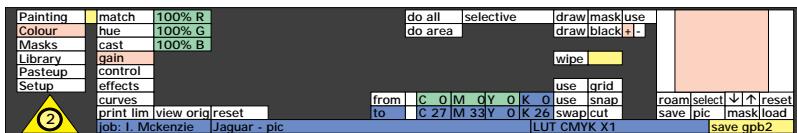
Graphic Paintbox 2

GAIN MENU

Description

This function is used to independently adjust the RGB values (Red, Green and Blue) only where colour is present; ie Gain does not affect white or black.

Values above 100% increase the amount of colour present and values below 100% decrease the amount. 100% is the normal value.



Operation

100% R

Controls the amount of the Red component in colours according to the luminance of the colour present.

100% G

Controls the amount of the Green component in colours according to the luminance of the colour present.

100% B

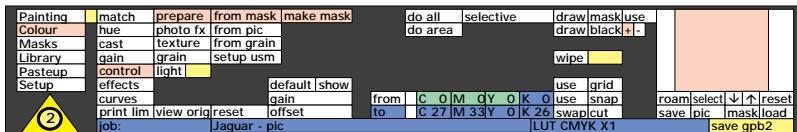
Controls the amount of the Blue component in colours according to the luminance of the colour present.

Graphic Paintbox 2

CONTROL MENU

Description

This menu presents a *prepare* option, which allows the user to use the colour cube to manipulate various aspects of the appearance of the image. These adjustments can be applied automatically. All of the effects involve creating a control plane in the backstore, which is used by the colour cube to apply the effect.



COLOUR

Operation

prepare

The sub-menu offers five options (*see below*), and after one of the options is selected, the user can go on to activate one of the effects (*photo fx*, *texture*, *grain* and *light*).

from mask

Enables a mask to be used to control the application. The area of the mask to be used is then selected within the *do all* or *do area* boxes.

from pic

Allows the colour cube to be controlled by the detail in the image. Using *do all* or *do area* after the detail is selected will place the effect in the control plane.

Graphic Paintbox 2

detail

Used in conjunction with *from pic* to control the detail of the image. Small numbers will obtain the sharpest detail.

from grain

Activates a roller bar of three Quantel grains (*very fine*, *fine* and *medium*), which are automatically tiled across the entire image upon selection.

setup usm

Allows detail to be extracted from the image, with the finest detail to be enhanced by usm gained through the smallest aperture. The aperture box offers a 0-16 range, with 0 retaining the sharpest image, while 16 offers a fully defocused image.

make mask

Used in conjunction with *all*, will copy the entire control plane into the mask, replacing the previous mask.

gain

Adjusts the intensity of the effect over a 0.01-10.00 range, effectively increasing the variation in the control plane.

offset

Enables the brightness of the image in the control plane to be adjusted.

default

Sets the control plane to a neutral value.

show

Views any prepared effects in a monochrome image of the control plane. The *show* function works only while the pen is holding the button down.

CONTROL MENU

reset

Allows the *offset* and *gain* boxes to be reset to their default values, if pressed in conjunction with *all*.

view orig

Shows the image without a preview of the change.

photo fx

This activates a roller menu offering a number of colour effect LUTs, which can be used to apply an immediate effect to the image.



See Chp 2 - “Colour Control”

COLOUR

negative V3.1

Inverts the colour values of the image, where the control plane is white. The image will remain unchanged if the control plane is black.

usm V3

Applies an immediate sharpening effect.

colour up/dn V3

Increases/decreases the colour saturation of the image over a 0-255 range.

colour up V3

Saturates the image with colour, becoming more saturated the darker the image in the control plane.

colour dn V3

Desaturates the image, with saturation decreasing the darker the image in the control plane.

Graphic Paintbox 2

warm V3

Washes a warm light over the entire image.

cold V3

Washes a blue light over the entire image.

warm/cold V3

Increases/decreases the colour temperature of the image, with darker areas increasing temperatures and lighter colours decreasing temperatures.

light up V3

Raises the contrast of the image, with contrast rising the darker the image in the control plane.

light dn V3

Lowers the contrast of the image, with contrast reducing the darker the image in the control plane.

light up/dn V3

Increases/decreases the lighting in the image, with contrast reducing on darker images and rising on lighter images.

difference V3

Creates a monochrome image which is the difference between the control plane and the luminance of the image.

texture

Enables a roller menu of LUTs, with a number of boxes controlling the application of LUTs to the image.

luma

Applies the texture only to the brightness of the image.

CONTROL MENU

COLOUR

rgb

Applies the texture only to selected colour separation of the image.

all

Applies texture to the red, green and blue separations of the image.

grain

Applies a grain LUT texture to the entire image.

grain

Loads a control file , dependent on the type of grain previously used, and allows a grain to be applied to the image.

light

Changes the light effect, dependent on the colour deposited in the adjacent colour pot.

addition

This gives the effect of light being added to light that was already present.

replace

This effect would be as if all the present light was replaced by a different coloured light.

add + rep

Allows a bi-directional interactive brush to be use. Painting with a + brush will add replacement colour correction, while a - brush will give an addition effect.



See Chp 2 - "Colour Control"

Graphic Paintbox 2

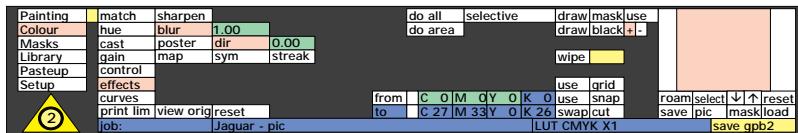
EFFECTS MENU

Description

This menu provides a variety of special effects facilities. These are termed *sharpen*, *blur*, *poster* and *map*. The *do all*, *do area* and *mask* functions are used to define how all the *Effects* are to be applied.



See Chp 2 - "Colour Effects"



Operation

sharpen

This function gives the impression of sharpening the image.

blur

1.00

Allows the image, or a selected area of the image, to be blurred. The amount of *blur* to be applied is manually controlled.

Entering a *blur* value and then pressing on the 'current image', will display a temporary, example processed square, displaying the effect of the current *blur* value just within the limits of this box.

The example square can be used to check the *blur* effect before it is permanently applied.

Graphic Paintbox 2

dir

Offers a *blur* defined by the user.

1.00

Defines the direction of the blur in degrees (up to a maximum of 360 degrees), with 0 degrees being a blur to the right and higher numbers rotating the blur clockwise.

sym

Applies a symmetrical *blur*, ie instead of a blur applied in just one direction, it is applied evenly across the *blur* area.

streak

A *blur* applied with a strong directional displacement effect.

poster

1.00

Poster enables the colour components of the 'current image' to be converted in steps, so giving the effect of poster paints.

The greater the value entered, the greater the degree of posterisation.

map

Map enables the luminance content of the image to be re-defined using colours from the palette area.

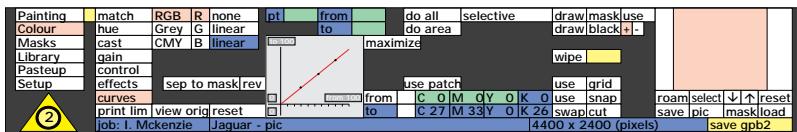
This facility uses the centre line of the palette to define the transformation to be applied to the image. Dark areas of the image will be assigned colours displayed on the left-hand side of the palette mixing area, and light areas those colours on the right-hand side.

The *Setup - palette - create* function can be used to select a portion of the image for the map process and useful palettes can be saved and loaded with the *Library*.

CURVES MENU

Description

The menu functions within the *Colour - curve* menu can be used to manually adjust RGB, Greys and CMY/CMYK (where this option has been installed), using control graphs. This menu allows user defined colour corrections to be built.



Operation

RGB

Gives access to the Red, Green and Blue separations for the current image.

Each separation can be individually adjusted to perform colour corrections on the selected image.

Grey

Allows the current image to be modified via five tone points; the black/low/middle/high & white points. This menu includes *curve*, *grey* and *zigzag* controls.

CMY

Accesses the cyan, magenta and yellow planes for the current image.

CMYK

Gives access to the cyan, magenta, yellow and black planes for the current image.

Note: The current selection of CMY or CMYK is dependent on the currently selected colour mode of the palette.

Graphic Paintbox 2

The following functions are common to each of the *curve* menu options. These are described first before we examine the functions unique to the *RGB*, *Grey* and *CMY(K)* options.

Note: The following menu functions should be read in conjunction with the *orig - all / show / do all / do area & selective* controls detailed at the start of this chapter.

none

Resets the display graph, removing any points and therefore the current curve.

For *RGB* and *CMY(K)*, selecting *none* will remove the currently highlighted separation from the current image.

Note: It is not necessary to select *do all* or *do area* to view the result of removing the highlighted separation as the system will update automatically when *none* is selected.

A separation will remain hidden until *linear* is selected or until the graph is manually manipulated (producing a user customised graph).

Alternatively, the current image can be processed without the indicated separations by selecting *do all* or *do area*.

More than one separation can be hidden at any one time.

linear

Applies a linear transformation of the current display graph points (ie from 0/0 at point 1 to 100/100 at the end point).

user

This information box will detail the selection of *none* or *linear*, whichever has been applied to the display graph.

Where points on the graph have been manually altered from the default, this box will state *user*.

CURVES MENU

COLOUR

pt

1

Indicates which point out of all the current display points is selected. Selecting the green numeric box will recall the menu keypad to allow a new point to be selected.

Alternatively, selecting a new point manually with the pen, directly from the graph, will prompt the system to detail that point.

Note: Entering a *pt* value greater than the total number of current points will prompt the system to jump to the current last point; ie the greater last number is redundant and will therefore be ignored.

from

0

Gives the value of the currently selected point, between 0 and 100 on the X axis.

to

0

Used to enter a new value for the currently selected point to be adjusted to, between 0 and 100 on the Y axis.

maximize

Enlarges the miniature display graph to a full size graph, to allow for example, additional points to be added or deleted.

Additional controls such as the ability to adjust points tangentially are also provided, to enable graphs to be 'fine-tuned'.

The current image will disappear while *maximize* is selected.

Note: The *maximize* and *selective* controls are mutually exclusive; ie selecting one will de-activate the other.



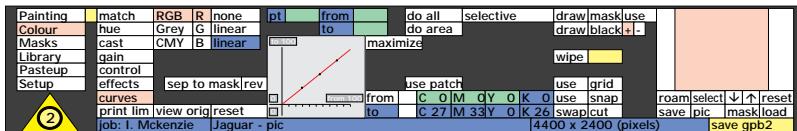
See also: Chp 2 -
"Colour Curves"

Graphic Paintbox 2

use patch

Used to test the effect of the current colour parameters on a small test square, the position of which is controlled by the pen, without permanently altering any part of that image.

A RGB



R

When highlighted, indicates that Red is the currently selected separation. The graph display line will also be shown in red.

G

When highlighted, indicates that Green is the currently selected separation. The graph display line will also be shown in green.

B

When highlighted, indicates that Blue is the currently selected separation. The graph display line will also be shown in blue.

sep to mask

The 'separation to mask' function uses the currently highlighted colour component (ie Red, Green or Blue), to create a black and white contrast mask over the current image. Where more of the separation occurs, more white appears. Where less of the separation occurs, more black appears.

Note: The black and white areas of *RGB - sep to mask* act in the reverse way to *CMY - sep to mask*.

CURVES MENU

COLOUR

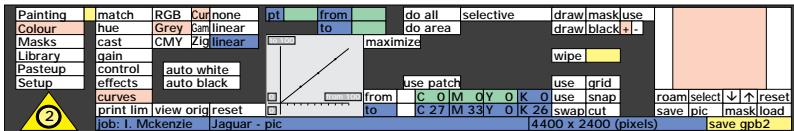
It should be noted that when creating a mask in this way, black is not added into the original image. The *from* section of the densitometer for example, will continue to display the original K (black) value, when *sep to mask* is selected.

The *to* box will display the percentage proportion of black in the mask.

rev

The *reverse* function will swap the current mask as defined by the *sep to mask* display.

B Grey



cur

The *grey - cur* box selects the curve functions which are used to adjust the luminance of the image.

Luminance is shown on the display graph as five distinct default points. These points represent:

Black (pt 1, = 0)

The low tone (pt 2, = 25)

The mid tone (pt 3, = 50)

The high tone (pt 4, = 75)

White (pt 5, = 100)

Note: Additional points can be added using the *maximize* graph.


See Chp 2 -
"Colour curves".

Graphic Paintbox 2

auto white

Allows an area to be defined within which the system will automatically identify the highlight point and set it as the new white point.

The area within which the analysis is to take place is determined by moving the pen into the image area and defining a box area in which the system will search for the highlight.

The new highlight point is used to update the entire image.

auto black

Allows an area to be defined within which the system will automatically identify the lowlight point and set it as the new black point.

The area within which the analysis is to take place is determined by moving the pen into the image area and defining a box area in which the system will search for the highlight. The new lowlight point is used to update the entire image.

gam

This controls the amount of gamma correction to be applied and recalls the blue 'Gamma' box and green numeric box (see below).

The *gamma* value defines the relationship between output density and original density across the mid-tones (ie changes in brightness).

The effect of altering *gamma* is to change all of the mid-tone proportionally about a mid-point. Increasing the *gamma* value will darken the shadows and lighten the highlights. A value of 1 is the default (ie no *gamma* correction is applied). Values greater than this increase the degree of correction.

Note: Changes in the range of 0.1 +/- are usually applicable.

CURVES MENU

Gamma

1.00

The green numeric box defines the current *gamma* value (These boxes appear when *gam* is selected).

Note: *use patch* can be used to test the effect of a *gamma* value without permanently affecting the current image.

As the *gamma* value changes, the menu display graph will also update, adjusting the curve across all tones to maintain a smooth transition between each point.

zig

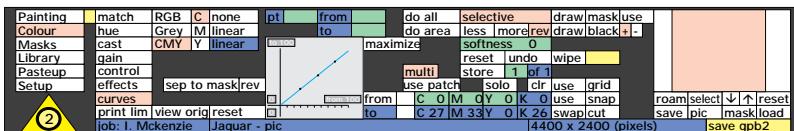
The *zig* box gives access to the zigzag control.

The *zigzag* function is employed to increase the contrast of a selected image or area of that image.

This can be used to identify artefacts that may have been introduced into an image, when for example copying from one part of an image to another.

When *zig* is selected, the display graph will alter to show the current *zigzag* value.

C CMY / CMYK



Note: The *sep to mask* and *rev* functions are not displayed when *multi* is selected (see diagram above).

C

When highlighted, indicates that cyan is the currently selected separation. The graph display line will also be shown in cyan.

Graphic Paintbox 2

M

When highlighted, indicates that magenta is the currently selected separation. The graph display line will also be shown in magenta.

Y

When highlighted, indicates that yellow is the currently selected separation. The graph display line will also be shown in yellow.

K

When highlighted, indicates that black is the currently selected separation. The graph display line will also be shown in black.

Note: The 'K' box will only appear when CMYK is selected, not CMY.

sep to mask

The *separation to mask* function uses the currently highlighted colour component (ie cyan, magenta, yellow or black), to create a black and white contrast mask over the current image.

Where more of the separation occurs, more black appears. Where less of the separation occurs, more white appears.

Note: The black and white areas of CMY - *sep to mask* act in the reverse way to RGB - *sep to mask*.

When creating a mask in this way, black is not added into the original image. The *from* section of the densitometer for example, will continue to display the original 'K' (black) value, when *sep to mask* is selected.

The *to* box in the densitometer will display the percentage proportion of black in the mask.

rev

The *reverse* function will swap the current mask as defined by the *sep to mask* display.

CURVES MENU

When working in the *Colour - CMY* menu options, the additional *multi* controls (shown & described below), appear under the *selective* option:

	do all	selective	draw
	do area	less	more
maximize	softness	0	
	reset	undo	wipe
multi	store	1 of 1	
	use patch	solo	clr
from	C 0 M 0 Y 0 K 0		use
to	C 27 M 33 Y 0 K 26		swap
			4400 x 2

multi

Used to apply user defined colour corrections on specific colour areas and specific separations, over the current image.

With *multi* highlighted, tapping the pen down in the image area on a specific colour, will prompt the system to look for similar points of the same colour and apply any colour corrections currently set in the RGB or CMY(K) setup boxes.

store

1

Processes the current colour correction over the current *selective* area.

This operation assigns an incremental value to each *store* process with the current value/layer seen in the green numeric box.

Up to 26 colour corrections can be held by the system at any one time.

of 3

Gives the total number of colour corrections applied since the *clr* function was last used to reset the *multi - store* function.

solo

Selected to perform a colour correction using an earlier stored correction and only applying and showing that layer on screen.

Graphic Paintbox 2

clr

The *clr* (clear) function will remove all the currently stored colour correction information, resetting the system to a new layer 1 and resetting the total number of stored layers to 1.

Unless saved to the *Library*, previously stored information is discarded.

CHAPTER 3
MASKS MENU

MASKS

Graphic Paintbox 2

MASKS MENU OVERVIEW

MASKS MENU OVERVIEW

Description

This facility allows selected areas of the image to be masked, so that processing can be applied to the image without affecting the masked area. The *mask* is a multi-level medium, producing effects from fully transparent to fully opaque, dependant on the density of the *mask* applied and the techniques used.



Operation

hicon

The *hicon* function allows the expression of any image as a *mask*.

The *mask* is produced using the luminance values of the picture itself and scaled by the two colour pots (normally black and white) which control the range of the *mask* values, from no *mask* to a fully opaque *mask* medium.

automask

Auto mask allows the creation of a *mask* by selectively picking density and/or colour values from the image itself, to isolate and protect specific coloured areas.

grow

Allows the edges of a *mask* to be expanded or contracted to prevent halo effects around edges, when the *mask* is used.

Graphic Paintbox 2

black

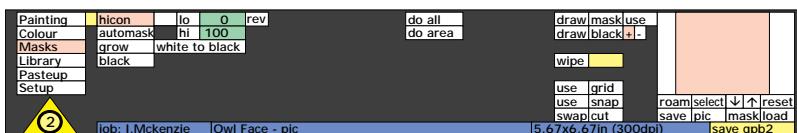
A composite mask can be generated from the 'black plane' element of a particular image and an existing *mask*.

Note: The 'black plane' functions are only available on machines installed with the 'cmyk' option.

HICON MENU

Description

Hicon allows the expression of any image as a *mask*. The *mask* is produced using the luminance values of the image itself and scaled by the two colour pots (normally black and white) which control the range of the *mask* values, from no *mask* to fully opaque.



Operation

**0**

This colour pot and numeric box define the darkest extreme of the contrast range of the resultant *hicon*. The colour pot allows this value to be determined by colour and the numeric box allows the value to be set as a percentage. The default value is 0 which is totally opaque at black.

**100**

The numeric box and the colour pot next to the *hi* box define the lightest extreme of the contrast range of the resultant *Hicon*. The colour pot allows this value to be picked using the pen and the numeric box allows the value to be set as a percentage. The default value is 100 which is totally transparent at white.

Graphic Paintbox 2

rev

Interchanges the *lo* and *hi* values and colours.

white to black

This resets the values in the *hicon* menu back to their defaults; ie white and 0 for *lo* and black and 100 for *hi*.

do all

Applies *mask* changes to the whole image.

do area

Applies the *mask* to a defined rectangular area, selected using cross wires which appear when the pen is moved into the image area.

With *do area* displayed and the pen in the image area, pressing down once selects one corner of the rectangle area within which the mask is to be applied.

Dragging the box out in the required direction and then pressing down a second time selects the opposite corner of the rectangle, defining the process area and at the same time prompting the system to apply the mask to that area.

AUTOMASK MENU

Description

This allows the creation of a *mask* using luminance (*luma*) and/or chrominance (*chroma*) detectors, to isolate and obscure areas of the image that have a specific colour and/or brightness range. The area of the image to be obscured is determined either by picking a colour (and its shades) from the image itself, or by entering numeric values.



Operation

luma

Uses the luminance (ie brightness) content of an image to be used as part of the *mask* .

chroma

Allows the chrominance (ie colour) content of an image to be used as part of the *mask* to be generated. The colour chart (as seen in the menu above) displays all possible combinations of red, green and blue. As *chroma* is selected, a dark rectangle appears over this chart, indicating the colour range to be included in the *mask*.

add

When enabled, the range to be included in the *mask* (*luma* and/or *chroma*) can be increased by pressing the pen on a colour that is not already included in the *automask*.

Note: The left-hand position of the Hand Unit thumb-switch enables the *add* function unless the *do area* function is selected, in which case it will enable the *mask - add* function.

Graphic Paintbox 2

rem

When enabled, the range to be included in the *mask* (*luma* and/or *chroma*) can be reduced by pressing the pen in the image area on a colour to be removed from the range.

Note: The right-hand position of the Hand Unit thumb-switch enables the *rem* function, unless the *do area* function is selected when it will enable the *mask - rem* function.

rev

The *rev* function reverses the current *mask* as defined by the *automask* setup.

softness

The *mask* generated by the luminance and colour detectors can be softened to improve its quality. This can be used to hide small deviations between the detected colour and the image colour and to remove the 'halo' artefacts around a masked area.

Placing the pen in the image area will produce a *hicon* (a high contrast black and white image) detailing the masked areas in black.

reset

This *resets* the values of luminance and colour detectors to their default settings (ie no detection and no *mask*).

undo

This appears when a change to the *luma* and/or *chroma* detector set-up, is made. This allows only the last parameter change to be abandoned, and the previous stage of the set-up to be restored.

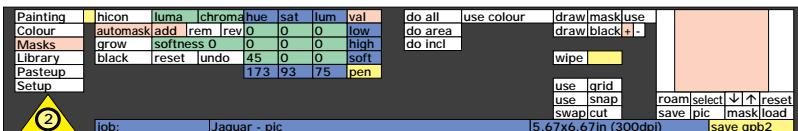
Note: The third button on the Hand Unit can be used to toggle between the *reset* and *undo* functions.

AUTOMASK MENU

val

This is an abbreviation for 'values'. When enabled, precise values of detected colour (luminance and colour) can be entered in terms of hue, saturation and luminance.

The range of these values is determined by high, low and soft values, between which the detectors will create a *mask*.



If any *automask* is currently generated and the *val* box is enabled, the exact hue, saturation and luminance values of that *automask* are displayed in terms of *high*, *low* and *soft* values.

The range of values to use in the *automask* luminance and colour detectors can then be set or refined manually.

MASKS

pen

This box will appear when *val* is selected and the pen is moved within the image, not the menu, area of the screen. The hue, saturation and luminance values of any point the pen passes over are then displayed in boxes to the left of this box. The *pen* box will also display the colour of the part of the image the pen is currently in proximity to.

Pen can be used to manually refine the luminance and colour detectors

do all

Will apply any *mask* changes to the whole image.

Graphic Paintbox 2

do area

Allows the *mask* to be generated over a defined rectangular area, selected using cross wires which appear when the pen is moved into the image area. Pressing the pen down once selects one corner of the area to be defined. While keeping the pen in proximity, a rectangle can be dragged out, with a second press down defining the opposite corner of the area to be processed. This second press down will also prompt the mask to be processed in this area.

do incl


See Chp 4 -
"Masks".

Do inclusive allows an area of *mask* already generated, to be filled with a hard edged *mask*, if *mask +* is selected, or to be removed of *mask* if *mask -* is selected.

When *do incl* is selected, a two stage process is automatically employed to find and fill the largest area of *mask* around a point chosen by the user.

use colour

This allows the effect of the current set-up in the *colour* menu to be seen with the current *mask* settings.

save

automask

The current *automask* settings can be saved in a temporary buffer by selecting *save - automask*. Settings can be saved for security (before further changes are made) and to allow settings to be transferred to other images. Saving to the temporary buffer will overwrite any current *automask* settings recorded there.

load

automask

This will restore the last *automask* settings that were saved to the temporary buffer (*save - automask*). These will overwrite the current *automask* setting.

GROW MENU

Description

Grow allows the edges of a *mask* to be expanded or contracted to improve its coverage.



This can be used to remove the halo around the edges of blue-screen material or small holes that cannot be removed using the *softness* parameter of the *automask* menu.

Operation

grow

-1.00

Positive values expand and negative values contract the edge. The size of the value determines the amount of edge movement.

rev

This reverses the value in the *grow* numeric box from positive to negative, or vice-versa.

do all

This applies the *mask* changes to the whole image.

do area

This allows the *mask* to be generated over a defined area, selected using cross wires.



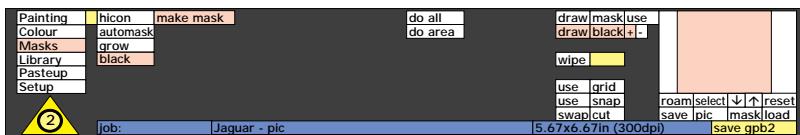
See “Automask - do area”, in this chapter, for further details.

Graphic Paintbox 2

BLACK MENU

Description

This allows the values from the 'black plane' of an image (ie the 'k' element of a 'cmyk' image) to be transferred into a *mask*, to create a new *mask* which is a combination of both. This is useful for creating 'run arounds'; ie it may be required to make a cutout of an image together with its black only drop shadow.



The *black* functions are only available on system's installed with the 'cmyk' option.

Note: The *Masks - black* menu can be used in conjunction with the *draw black* functions on the far right of the menu for turning on or turning off the 'black plane' element.

Operation

make mask

This works in conjunction with the *do all* and *do area* boxes to define a *mask* using the 'black plane' element.

do all

This will add the 'black plane' to the whole image.

do area

Allows a *mask* to be generated over a defined rectangular area, selected using cross wires.

Graphic Paintbox 2



See “Automask - do area”, in this chapter, for operation details.

No black

If black is selected without having first chosen *draw black* then this abort box will appear.

The *draw - black* function must be selected before *black* in the *Masks* menu, to create space within the system for a new 'black plane' to exist.

CHAPTER 4

LIBRARY MENU

LIBRARY

Graphic Paintbox 2

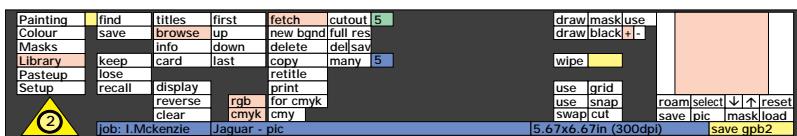
LIBRARY OVERVIEW

LIBRARY OVERVIEW

Description

The *Library* is the term given to the system's comprehensive storage and management system.

Items are stored to the internal or external disk as specific types (such as pictures and masks), so that the type of item becomes a file reference for the location of the stored item.



See Chp 4 - "Library".

Operation

find

The *find* function is used to locate items in the system's *Library*.

save

The *save* function is used to store items in the system's *Library*.

keep

When searching through large numbers of *Library* entries, the *keep* function is used to retain selected entries in the current search buffer, while discarding those not selected.

lose

When searching through large numbers of *Library* entries, the *lose* function is used to discard entries from the current search buffer, while retaining those entries which are not selected.

LIBRARY

Graphic Paintbox 2

recall

This is used to step back through any *keep* or *lose* processes that have been performed, to return to the original search buffer.

titles

Displays the current *Library* buffer items in listed text format. 15 items are listed per screen, with field information as defined in the *display* sub-menu - *see below*.

browse

Displays the current *Library* buffer items as a series of miniature pictures, 15 per screen.

info

Displays the current *Library* buffer items as miniature pictures, together with name, type, disk, date and size information.

A maximum of six items can be detailed on screen at any one time in this format.

card

Displays the current *Library* buffer item in the form of an on-screen index card, detailing name, type, disk, date and description information, together with a browse miniature (where appropriate).

One index card can be displayed on screen at any one time.

display

Accesses a sub-menu which allows the user to define which directory information fields will be seen when in *titles* mode.

Fields can also be rearranged and resized while in this sub-menu, using the pen in the header display area - two fields can be made to swap places by sliding the pen from the position of one to the other; a yellow line 'hidden' to the left hand side of each field header allows the width of the field to be altered.

LIBRARY OVERVIEW

The following fields are available for *display*:

job

Displays the *job* title for all searched items.

client

Displays the *client* details for each of the searched items.

create

Displays the creation date and time for all searched items.

type

Displays the file *type* of searched items (ie *pic*, *brush*, *mask* etc).

volume

Displays the storage source of items (eg *system disk*).

size

Will display the dimensions of each of the searched items. This is expressed in terms of the units specified in *scaling* (*see below*).

Col Space

Displays the method used to create or modify colours in image processing or printing, for each item in the list (ie *gpb2*, *rgb*, *video* etc).

scaling

Will display the dimensional units (ie *pixels*, *mm* (milimeters) or *inches*) used to express an item's *size*.

Graphic Paintbox 2

The following functions are also available within the *display* menu:

clear

Clears all of the information fields except the 'name' column.

header

If activated, the header bar at the top of the screen displays the user-selected field titles. If this box is not selected the header display will only show the number of items found, the sort type and the disk on which the items are held. Moving the pen up to the header bar will then alter the display to reveal the header titles, while the pen is held in proximity there.

detail

When selected, will automatically activate an information box when the pen 'hovers' over any item within the Library *titles* list, information card or *browse*.

ignore

This function will restore the *display* to the settings it held prior to entering the *display* menu.

reverse

When selected, reverses the display according to the current sort mechanism (ie a sort by name with *reverse* highlighted will display items from Z to A).

Note: A sort is performed by selecting the appropriate field header in the header bar of the display area.

clear

This removes the current sort mechanism, and comes into effect the next time the display is altered (ie a *first*, *next* etc operation or another search).

LIBRARY OVERVIEW

first

Jumps to the *first* page of *Library* entries for the current search criteria.

up

If more *Library* entries have been selected than can be displayed on screen at one time, *up* allows movement through the entries until the first page of items is reached.

down

If more *Library* entries have been selected than can be displayed on screen at one time, *down* allows movement through the entries until the last page of items is reached.

last

Jumps to the *last* page of *Library* entries for the current search criteria.

fetch

Recalls the selected item as the 'current cutout'. A number of additional functions, ie *cutout*, *full res*, *del*, *save* and *many*, will also appear. These allow the selected item to be manipulated as a cutout, and are described elsewhere.



See Chp 1 - "Painting - cutout".



See Chp 2 - "Cutouts".

new bgnd

The 'new background' function re-configures the system *page* -settings in the *Setup - job* menu to fit the selected *Library* item.

The selected *Library* item is loaded as the 'current item', overwriting any other item held in the current working store.

LIBRARY

Graphic Paintbox 2

mask only

The ability to bring in 'mask only' information to the *draw mask* layer is offered upon selection of *new bgnd*.

rgb

for cmyk

Allows the selected *rgb* image to be loaded with either a straight *rgb* colour space, or with the *for cmyk* colour space, which allows for the conversion to print.

cmyk

cmy

Loads the selected *cmyk* image with either a *cmyk* or a *cmy* colour space. Only one of these two boxes may be selected at any one time.

k to black

This box will only appear when *new bgnd* is selected. When the selected image is a 'cmyk' image, selecting *k to black* will use the *k* element of that image to form the black plane.

delete

Allows selected files or items to be removed from the system's *Library* or Magneto Optical. Highlight *delete* and then select items with the pen.

Note: If an item is 'write protected', the prompt "Protected" will be displayed and the *delete* will not be processed. Select the disk's *write* option in the *Full Page* Menu, if applicable.

all

Will remove *all* items which match the criteria specified; eg all files with the same *title* selected for deletion.

LIBRARY OVERVIEW

shared

Will state *shared* or *removable* depending on which disks are present and allows items to be removed from the 'write - enabled' disk; for example, highlighting *shared* will enable items to be removed from the shared disk.

confirm

This 'double-check' must be selected before processing will continue; ie to ensure that the selected items are the ones to be removed.

ignore

This cancels the *delete* operation. No items will be removed.

copy

The *copy* function produces a duplicate of the selected item. This item can then be saved to any write-enabled disk or Magneto Optical disk.

all

Will produce copies of all items which match the criteria; eg, all files with the same *title*.

shared

Will state *shared* or *removable* depending on which disks are present and allows items to be duplicated to the 'write - enabled' disk; for example, highlighting *shared* will enable items to be duplicated to the shared disk.

confirm

This is a double-check that must be selected before processing takes place; ie to ensure that the selected items are the ones to be duplicated.

Graphic Paintbox 2

ignore

This cancels the *copy* operation. No items are duplicated.

retitle

Recalls the menu 'soft' keypad to enable a new title to be entered when an item is selected.

rebrowse

This will re-display the *browse* image instead of changing the title.

Note: Some larger images will only be partly displayed.

print

Will print out file titles to a selected printer port and will also print the titles in the buffer.

full

This will print out all information for all the items in the current buffer.

unsorted

Will print the selected *Library* information in a non-specific order; the items are not sorted.

alpha

Will print the selected *Library* information in alphabetical order.

numeric

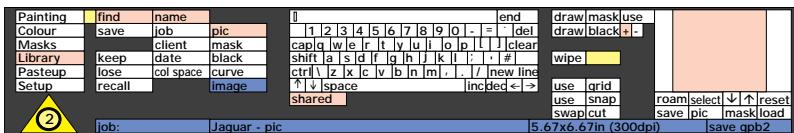
Will print the selected *Library* information in numeric order.

date

Will print the selected *Library* information in chronological order.

LIBRARY OVERVIEW

A FIND - NAME MENU



find

name

name Locates all items of the selected file type with the 'name' entered, and loads them into the current *Library* buffer.

pic

pic Locates all 'picture' files in the *Library* of the currently selected disk and places them in the current *Library* buffer.

mask

mask Locates all *mask* files in the *Library* of the currently selected disk and places them in the current *Library* buffer.

black

black Locates all 'black plane' files in the *Library* of the currently selected disk and places them in the current *Library* buffer.

Curve

curve Locates all *curve* files in the *Library* of the currently selected disk and places them in the current *Library* buffer.

image

image Details the type of item that is to be found; ie “image” for a picture (*pic*) file. If the box states “any”, all file types will be examined for the correct search criteria (ie the *name* entered).

Selecting this blue box will de-select the *name* option and recalls further *find* options:

Graphic Paintbox 2

group

The *group* box allows combinations of file types to be searched for, such as pictures, grids and masks. Select *group* and then highlight the file types to be searched.

any

Selecting *any* will find all files, of *any* type listed below.

palette

Finds any *palette* files recorded in the *Library* of the currently selected disk. A palette fetched from the *Library* will overwrite the current palette.

grid

Finds any *grid* files in the *Library* of the currently selected disk. A *grid* fetched from the *Library* will overwrite the current grid.

sequence

Finds any *sequence* files in the *Library* of the currently selected disk. A *sequence* fetched from the *Library* will overwrite a current sequence.

col correct

Will find any 'colour correction' files in the *Library* of the currently selected disk.

gpb lut

Finds any colour lookup tables (ie lut's), in the *Library* of the currently selected disk.

curve

Finds any *curve* files in the *Library* of the currently selected disk. A *curve* will appear in the *Painting - curves* menu. Once recalled, a *curve* can be manipulated or manoeuvred, even if previously stuck down.

brush

Finds any *custom* brush files that have been saved, and loads them into the current *Library* buffer.

LIBRARY OVERVIEW

key map

Finds any 'keyboard maps' that have been saved and loads them into the current *Library* buffer.

text font

Locates all the text fonts that match the selected criteria and loads them into the current *Library* buffer.

lib setup

Finds any 'library setups' that have been saved and loads them into the current *Library* buffer.

warp

Finds all *warp* curves (ie sets of *warp* parameters) that have been saved and loads them into the current *Library* buffer.

end

Processes the search for the current criteria.

B FIND - JOB MENU

An image is tagged by its 'individual' name and the name of the collection of images it belongs to; ie the *job* name.

A *job* name can be up to 80 alphanumeric characters long and is used to trace images and the files they belong to.

job

This recalls the 'soft' keyboard to allow a *job* name to be entered for a search.

All *job* names which match the entered *job* name will be located and loaded into the current *Library* buffer.

end

Processes the search for the current criteria.

Graphic Paintbox 2

C FIND - CLIENT MENU

Further filing categorisation is permitted by the use of the *client* field. Like *job*, this is an alphanumeric field, up to 80 characters long, and it can be used to trace images and jobs with a common *client*.

client

This recalls the 'soft' keyboard to allow a *client* name to be entered for a search.

All *client* names which match the entered *client* name will be located and loaded in to the current *Library* buffer.

end

Processes the search for the current criteria.

D FIND - DATE MENU



The *date* function can be used to find files saved on one day or between given dates and to load those files into the current *Library* buffer.

from

Recalls the numeric/calculator keypad to enter the 'start' date; ie the date to search *from*.

to

Recalls the numeric/calculator keypad to enter the 'end' date; ie the date to search *to*.

before

Selected to search for files saved to the *Library* prior to a given date.

after

Selected to search for files saved to the *Library* since a given date.

LIBRARY OVERVIEW

today

Automatically inserts the day's date (as known by the system), into the selected box (ie *from, to, before or after*).

all

Selected to search for items saved on all dates in the *Library*.

only

Selected to search for all items saved to the *Library* of the currently selected disk, on one specific day.

today

Enters today's date as known by the system, to search for items saved that day.

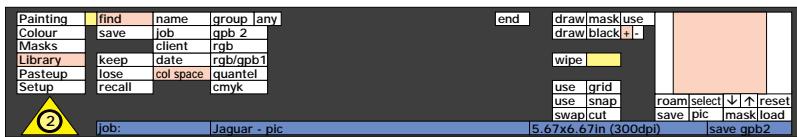
clear

Removes any date entered for a search.

end

Processes the search for the current criteria.

E FIND - COLOUR SPACE MENU



LIBRARY

col space

Used to find files of a specific type of 'colour space' (where *col space* is the method used to create or modify colours in image processing and printing).

group

Selected to locate files from more than one 'colour space' type at the same time.

Select *group* and then highlight all the *col. space* types to be searched for.

Graphic Paintbox 2

any

Locates all saved files regardless of 'colour space' type.

gpb 2

Locates all files of the Graphic Paintbox 2 colour space type, and loads them into the current *Library* buffer.

rgb

Locates all files with a Red, Green & Blue 'colour space', and loads them into the current *Library* buffer.

rgb / gpb 1

Locates all Red, Green & Blue 'colour space' Classic Graphic Paintbox images. Any suitable files are loaded into the current *Library* buffer.

quantel

Locates all files saved to the *Library* of the currently selected disk, that have been brought into the system from an external Quantel source (from Printbox or a video image or from film), and loads them into the current *Library* buffer.

cmyk

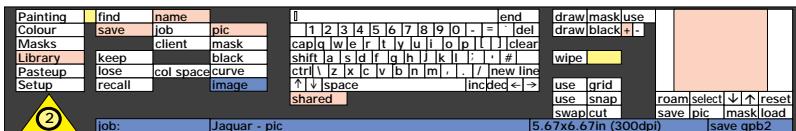
Locates all files with the Cyan, Magenta, Yellow and Black 'colour space', and loads them into the current *Library* buffer.

end

Processes the search for the current criteria.

LIBRARY OVERVIEW

F SAVE - NAME MENU



save

name

This copies the 'current item' to the *Library* of the currently selected disk, with the *name* entered in the 'soft' keyboard. This name is a reference for that file.

pic

This copies the 'current image' (ie 'picture') to the *Library* of the currently selected disk.

mask

This copies the current *mask* to the *Library* of the currently selected disk.

black

This copies the current 'black plane' to the *Library* of the currently selected disk.

curve

This copies the current *curve* to the *Library* of the currently selected disk.

image

Details the type of item that is to be saved; ie the word "image" appears for a picture (*pic*) file.

Selecting this blue box will de-select the *name* option and recall further *save* options, as follow.

LIBRARY

Graphic Paintbox 2

group

The *group* box allows combinations of file types to be saved at the same time; eg pictures, grids and masks.

palette

This copies the current 'palette' to the *Library* of the currently selected disk.

grid

This copies the current grid to the *Library* of the currently selected disk.

sequence

This copies the current *sequence* to the *Library* of the currently selected disk.

col correct

This copies the current 'colour correct' set-up to the *Library* of the currently selected disk.

gpb lut

This copies the current 'colour lookup table' to the *Library* of the currently selected disk.

curve

This copies the current curve to the *Library* of the currently selected disk.

brush

This copies the custom brush to the *Library* of the currently selected disk.

key map

This copies the created keyboard map to the *Library* of the currently selected disk.

lib setup

This copies the current 'library setup' to the *Library* of the currently selected disk.

warp

Copies the current *warp* curve (ie set of *warp* parameters) to the *Library* of the currently selected disk.

LIBRARY OVERVIEW

end

Processes the save using the current criteria.

G SAVE - JOB MENU

An image is tagged by its 'individual' name and the name of the collection of images it belongs to, the *job* name. A *job* name can be up to 80 alphanumeric characters long and is used to trace images and the files they belong to.

job

This recalls the 'soft' keyboard to allow a *job* name to be entered. The 'current item' will be saved under this *job* title.

end

Processes the save using the current criteria.

H SAVE - CLIENT MENU

Further filing categorisation is permitted by the use of the *client* field. Like *job*, this is an alphanumeric field, up to 80 characters long, and it can be used to trace images and jobs with a common *client*.

client

This recalls the 'soft' keyboard to allow a *client* name to be entered. The 'current item' will be saved under this *client* name.

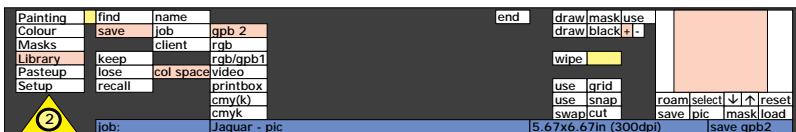
end

Processes the save using the current criteria.

LIBRARY

Graphic Paintbox 2

I SAVE - COLOUR SPACE MENU



col space

Copies files of a specific 'colour space' (where *col. space* is the format applied to create or modify colours in processing), to the *Library* of the currently selected disk.

gpb 2

This saves the current file to the *Library* of the currently selected disk, with a Graphic Paintbox 2 'colour space'.

rgb

This saves the current file to the *Library* of the currently selected disk, with a Red, Green & Blue 'colour space'.

rgb/gpb 1

This saves the current file to the *Library* of the currently selected disk, with a Classic Graphic Paintbox, RGB format.

video

This saves the current file to the *Library* of the currently selected disk with a Quantel video 'colour space'.

printbox

This saves the current file to the *Library* of the currently selected disk, with a Quantel Printbox 'colour space'.

LIBRARY OVERVIEW

cmy (k)

Saves the current file to the *Library* of the currently selected disk with a Cyan, Magenta & Yellow 'colour space', and with a separate 'black plane' element.

cmyk

Saves the current file to the *Library* of the currently selected disk with a Cyan, Magenta, Yellow & Black 'colour space' (where the 'black plane' is integrated).

LIBRARY

Graphic Paintbox 2

CHAPTER 5

PASTEUP MENU

PASTEUP

Graphic Paintbox 2

PASTEUP MENU OVERVIEW

PASTEUP MENU OVERVIEW

Description

The *Pasteup* menu allows multiple cutouts to be positioned anywhere within the imaginary three dimensional space of the monitor screen. Each cutout can be manipulated in 3D space with values for x (horizontal), y (vertical) and z (perspective).



Note: Each axis has an associated numeric box and these correspond to x, y and z when reading left to right across the screen.

The *Pasteup* menu also allows access to the *warp* menu used to distort cutouts.

PASTEUP

Graphic Paintbox 2

General Operation

3D

Gives access to the three dimensional menu functions when a cutout is selected (if a cutout is not selected then these functions will not operate).

text

Allows *text* to be created for use as a cutout and gives access to the *set map* function, used to create customised keyboard layouts for new fonts.

Note: If no text font has been loaded from the Library, the text functions will not operate.

warp

Accesses the *warp* menu when a cutout is selected (If a cutout is not selected then these functions will not operate).



See also Chapter 1 - "Painting."

PASTEUP 3D

Overview

This is the main *Pasteup* area, in which cutouts can be created (using *cut*) and manipulated in three dimensional space.

Note: Cutouts can also be imported from the *Library*.



See also “Painting - Cutouts” for details of the cutout menu.

Operation

pos

Pos is an abbreviation for position.

The *pos* sub-menu functions enable the ‘current cutout’ to be manually positioned in the x, y and z axis.

The *pos* sub-menu functions enable the ‘current cutout’ to be manually positioned in the x, y and z axis.

0.000

Defines the position of the ‘current cutout’ in the x axis.

0.000

Defines the position of the ‘current cutout’ in the y axis.

Graphic Paintbox 2

0.000

Defines the position of the ‘current cutout’ in the z axis.

screen

This applies the centre of the monitor screen as the reference point for position changes.

axis

Gives the cutout a visual representation of its x, y and z axis. The axis can be moved by highlighting *axis* and then using *pos*, *spin* and/or *size* to manipulate the axis. The axis only becomes visible when *pos*, *spin* or *size* is activated.

global

Allows all of the cutouts in the main image area to be repositioned, resized, spun and pinned as a group.



See Chp 2 - “Cutouts”

attach

Enables cutouts to be linked together and be manipulated in respect to each other. This differs from *global* as it allows the user to choose which cutouts to link.



See Chp 2 - “Cutouts”

spin

Spin sub-menu functions enable the ‘current cutout’ to be rotated in the x, y and z axis.

0.000

Defines the amount of spin in the x axis.

0.000

Defines the amount of spin in the y axis.

0.000

Defines the amount of spin in the z axis.

Selecting one of the *spin* numeric boxes will toggle its colour to pink. As well as recalling the numeric keypad to enter values, the following menu functions will appear:

inc

When highlighted, the *qtr* and *half* functions act in a positive direction.

dec

When highlighted, the *qtr* and *half* functions act in a negative direction.

qtr

Rotates the 'current cutout' by one quarter around the selected axis with each pen press. Rotation will be positive or negative, depending on the selection of *inc* or *dec*.

half

Rotates the 'current cutout' by a half around the selected axis with each pen press. Rotation will be positive or negative, depending on the selection of *inc* or *dec*.

Other spin functions (axis, global and attach) are described under pos, above.

size

Size sub-menu functions enable the 'current cutout' to be re-sized in the x, y and z axis.

1.000

Defines the increase or decrease in size of the 'current cutout' in the x axis. 1 is the default; ie no change to the original size.

1.000

Defines the increase or decrease in size of the 'current cutout' in the y axis. 1 is the default; ie no change to the original size.

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1.000

Defines the increase or decrease in size of the 'current cutout' in the z axis. 1 is the default; ie no change in the original size.

Other size functions (axis, global and attach) are described under pos, above.

pin

The *pin* menu allows the corners of the 'current cutout' to be 'pinned' in any aspect on the screen.



tags

This enables the yellow *tags* ('corner points') to be repositioned closer or further away from the edge of the 'current cutout'.



These give access to the corresponding four 'corner pins', even if a *pin* is not currently within the monitor screen area.

0.77

Enables pin movement in the x axis.

0.78

Enables pin movement in the y axis.

& size

This will prompt the size of the 'current cutout' to change as a 'corner pin' is moved to a new position.

cutout

1

The green numeric box to the right of *cutout* indicates the current number of the ‘current cutout’. Cutouts are numbered in ascendant order of their generation, or in the order in which they were ‘fetched’ from the *Library* as cutouts.

Note: Multiple cutouts can only be loaded when the *many* box is selected (*see below*) and when the large framestore option is installed.

full res

This will re-display the ‘current image’ and *cutout* as a ‘full resolution’ image.

hid

Enables layers to be stacked and hidden from view.

del

This is used to remove a cutout or selection of cutouts from those currently available for *Pasteup* manipulation. Highlight *del* and then either tap on the cutout to be removed or on the number of the ‘current cutout’ (ie the green numeric box to the right of *cutout*).

sav

This is used to save a cutout or selection of cutouts from those currently available. Highlight *sav* and then either tap on the cutout to be saved or on the number of the ‘current cutout’.

all

Selecting *delete - all* will remove all the ‘current cutouts’.

Note: Attempting to select *cutout* after deleting all the current cutouts will prompt the system to state “None”; ie no cutouts exist therefore the *cutout* menu functions are not available. Press down to remove this box.

Graphic Paintbox 2

All can also be used to save *all* current cutouts.

many

1

When multiple cutouts are to be manipulated and processed, *many* is selected.

The blue box to the right of *many* details the total number of cutouts currently loaded; ie images 'fetched' as cutouts or cutouts created with the *cut* function. This number will automatically update with each addition or be decremented when *delete* is used.

Selecting *many* also recalls the *priority* boxes:

priority

1

The green *priority* box indicates the current 'layer' of the 'current cutout'.

A cutout's 'layer' number indicates which of any other cutouts it will be displayed in front of; ie a cutout with *priority* 3 will appear in front of cutout's with *priority* 2 and 1, but *priority* 4 would appear in front of all of these.

Note: Selecting *priority* will recall the *down*, *up*, *bottom*, *top*, *under* and *on* menu functions:

down

up

Decreases or increases the 'current cutouts' *priority* by a factor of 1 with each selection of *down* or *up* respectively.

bottom

top

Moves the 'current cutouts' *priority* to the lowest or highest *priority*, the lower limit being 1 and the upper limit defined by the total number of 'current cutouts'.

under

on

Moves the ‘current cutouts’ *priority* to one less or one more than that of a second cutout selected with the pen.

stick

This permanently applies all the ‘current cutouts’ in their current aspect to the ‘current image’.

Duplicates of all the ‘current cutouts’ will be created when the *stick* function is used. These duplicates will be positioned directly over the original cutout and in the same aspect.

style

Activates a roller menu from which an effect can be chosen. The effect is seen after it has been selected and stuck to the image.

+ mask

Allows the *mask* component of each cutout to be combined with the *mask* component of the background image.

add

Add is selected to combine the *mask* component of each cutout to the *mask* of the background image.

rem

Rem is the abbreviation for ‘remove’.

Rem is selected to remove the *mask* component of each cutout from the *mask* of the background image.

100%

Determines the transparency of the ‘current cutout’, from transparent (0%), to fully opaque (100%).

Different transparency values can be set for each cutout, to be applied when *stick* is selected.

Graphic Paintbox 2

rename

Allows the current cutout to be retitled.

PASTEUP - TEXT

Overview

The *text* menu allows text to be generated for use as a cutout. It also allows a number of text features to be modified as required.

Selecting *text* activates a sub-menu and a soft keyboard for alphanumeric input. The top line of the keyboard will display the last selected font brought in from the *Library*. Pressing on this line enables a scrollable list of all font titles loaded (some 1,085 fonts are available from the *Library*, in addition to any true type fonts loaded by the user).

Painting	3d	xpos	0.0	lose	typeface name	end
Colour	text	ypos	0.0	apply fo	1 2 3 4 5 6 7 8 9 0 - = ' del	
Masks	warp	size	2.2	map	cap q w e r t y u i o p [] clear	
Library	page	kern	32.0	find	shift a s d f g h j k l ; ' #	
Pasteup	line	yinc	4.2	stick	ctrl \ z x c v b n m , . / newline	
Setup	word	space	0.0	L C R ↑ ↓ space		
	char	flip				
	set map	tumble		↓ ↓		

Operation

page

Allows any modifications to be made to the entire page of text.

line

Allows any modifications to be made to a selected line.

word

Allows any modifications to be made to individual words.

char

Character (*char*) allows modifications to be made to individual characters.

Graphic Paintbox 2

set map

Activates five character grids above the menu area.



See Chp 3 - “Fonts”.

remove

Allows a character from one of the four selected character maps to be deleted.

cycle

Allows consecutive characters to be placed in sequence into position on the keyboard maps.

clear

Allows all assigned characters on all four keyboard maps to be cleared, in order to define a new soft keyboard layout.

reset

Allows keyboard maps to be reset to their last setup before any permanent changes were applied.

default

Overwrites the current soft keyboard layout within the system default layout, in the currently selected text font.

system

Applies the current character sets, so that whenever a soft keyboard is recalled, in any system menu, the layout is as it was when *system* was selected.

accent

Enables any character from the current font to be used as an accent.

composite

Selecting a character in the character set will highlight any characters that have been combined to produce that character.

make pad

Automatically replaces the character pad with characters from the currently selected text font.

lose pad

Automatically replaces the character pad with the system's default font and layout.

groups

This feature was introduced for Arabic text fonts, but is available for all.

Selecting *groups* recalls a table at the top of the display which allows groups of context-sensitive character forms to be selected. Columns represent a character 'group', while each row represents a context.

The first row, separate from the other three, specifies the controlling keystroke. It is also the character form used when the character stands alone. The second row is the form used when the character begins a word, the third is that used in the centre of a word, and the last is that used at the end of a word.

xpos

Moves the selected text in either a left or right direction. Positive values entered on the numerical keypad moves the text to the right, and negative values to the left.

ypos

Moves the selected text up or down. Positive values entered on the numerical keypad moves the text down the screen while negative values moves the text up.

Graphic Paintbox 2

size

Manipulates the size of the text in either pixels, inches or mm, depending on which measurement has been selected in the *Setup - job* menu.

kern

Manipulates the spacing equally between the individual letters, via the associated numerical entry box.

yinc

Modifies the amount of space between lines of text, depending on the numerical value entered.

space

Manipulates the spacing between words via the numeric entry box.

jump

Replaces *yinc* and *space* in *word* and *character* modes.

This will move the *word* or *character* up or down, when the lines of the text are horizontal. Positive values move the item towards the top of the screen while negative values move items down the screen.

tilt

Available only with true-type fonts (with *shear*, replaces the *flip* and *tumble* menu boxes).

This rotates each character about the point where the left side of the character intersects with the base line.

A 30° *tilt* applied to the word **jape**, for example, gives **Ճապէ**.

PASTEUP - TEXT

shear

Available only with true-type fonts (with *tilt*, replaces the *flip* and *tumble* menu boxes).

This shears each character, again about the point where the left side of the character intersects with the base line.

A 30° shear applied to the word **jape**, for example, gives *jape*.

flip

Inverts the current *character*, *word*, *line* or *page* left to right.

tumble

Inverts the current *character*, *word*, *line* or *page* top to bottom.

Note: For true-type fonts, *flip* and *tumble* are replaced with *tilt* and *shear* (see above).

lose

Allows the active font to be deleted from the roller menu but not the *Library*.

apply font

Changes the font of the current line or character to that of the font currently selected.

map

Locks the current keyboard map with the current font.

find

Locates the text to the centre of the display should the text be positioned off the background image.

stick

Allows text to be stuck to the main image.

PASTEUP

Graphic Paintbox 2

L

C

R

Will justify the selected text *left*, *centred* or *right*.

→

←

The first of these boxes (ie the one on the left) runs the text from left to right, horizontally.

The second box (on the right) runs the text from right to left, horizontally.

↓

↓

The first of these boxes (ie that on the left), runs the text vertically and ranged to the right.

The box to the right runs the text vertically and ranged to the left.

end

Automatically loads the text into the cutout menu for manipulation as a cutout. Text is seen as mask information.

WARP

Overview

Warp allows the shape of a cutout to be modified in an irregular way, allowing for controlled bends and distortions. The cutout can be any size up to 2880x2656 pixels.



Operation

For a distortion to be created, an area on the cutout must be defined. This is done by tapping down points on the screen from which a line is automatically drawn allowing multiple nodes to be positioned around the cutout as a closed area curve. When drawing out the curve, the line between the nodes will be shown as a dotted line. When the pen is lifted, it will change to a solid line. The line will be yellow if the destination box, *dest*, is off indicating that the curve is in edit mode, or cyan if the *dest* box is on, indicating that any changes to the curve will form the warp distortion.

The curve can be stretched by pulling a node or the lines in-between the nodes. When the desired effect is achieved pressing *preview* will process the distortion. Note that the distortion will not exceed the defined curve. The distorted cutout can then be restored through the main image in the normal way to achieve the desired result.

For more details and examples of specific areas, please refer to the *Fundamentals Manual*.

Graphic Paintbox 2

angle

Pressing this box allows the angle of the curve to be changed by scrolling the pen on the screen. If copies of the curve have been made, the angle changes will affect them all equally unless the pen is positioned within a particular curve. With *dest* on, the changes will become part of the distortion.

size

Pressing this box allows the size of the curve to be changed by scrolling the pen on the screen. If copies of the curve have been made, the size changes will affect them all equally. To affect only a particular curve, the pen must be positioned inside that curve. With *dest* on, the changes will become part of the distortion.

linear

This allows nodes to be converted from curve points to straight points. To convert a point, select *linear* and then tap on a node, or select *all* for all nodes on the curve.

round

This does the opposite of *linear*, allowing straight node points to become curved.

horiz

Restricts the effective pen movement to the horizontal plane.

vert

Restricts the effective pen movement to the vertical plane.

CURVE TITLE

Allows access to a scrolling list of available *warp* curves. If a *warp* curve is brought in from the *Library*, or saved in the *warp* menu it will be included in this list.

load

This will restore the *warp* curve specified by the 'curve title' box (*see above*).

save

This will save the current *warp* parameters as a *warp* curve. The curve will appear in the scrolling list described above, and can be recalled as required.

lose

This removes the selected *warp* curve from the scrolling list. It does not affect the *Library* copy.

title

Allows the currently selected *warp* curve to be renamed.

copy

Pressing this box and then dragging the curve will create a copy of the curve, within which the *warp* distortion will also take place. When *size* is turned on, *copy* can be used to make a series of concentric shapes by selecting the curve to be copied and then rescaling it by dragging the pen.

dest

With this box (destination) off, any changes to the curve's size, shape or angle, will not be processed as a *warp* distortion, and will not affect the cutout. This is known as 'edit mode' and is indicated by a yellow curve line. Edit mode allows the curve to be manipulated until the desired shape, size and area is achieved before the distortion process begins.

With *dest* on, any changes to the curve will affect the cutout. This is known as 'destination mode', and is indicated in the display with a cyan curve line.

Graphic Paintbox 2

box

This allows a rectangle to be drawn within the cutout, instead of defining the *warp* curve manually. The *box* is drawn by tapping down and dragging out the opposite corner. Once defined, the rectangle can be changed to an irregular shape by dragging its corners. It can have its corners converted to curves by selecting *round* and then tapping on a corner node. Selecting *round* and *all* will form an ellipse.

curve

With *curve* highlighted, pressing down on any part of a curve on screen will select it. No other curves will be affected.

Note: A closed curve can also be selected by pressing down in the centre of the shape, even when *curve* is not selected.

num

This allows certain modifications to be specified numerically. The following boxes are recalled as a sub-menu:

divide

1

This inserts extra points in a section of curve. The number of nodes to be inserted is specified in the numerical box. Selecting a section of line with *divide* highlighted will insert the points.

turn

0.0

Selecting *turn* will rotate the entire curve or curves by the value, measured in degrees, specified in the associated numerical box.

move

0

0

Selecting *move* will translate the entire curve or curves by the x and y values, measured in pixels, specified in the two associated numerical boxes.

scale**100****100**

Selecting *scale* will resize the entire curve or curves according to the x and y values, expressed as percentages, specified in the two associated numerical boxes.

So, for example, scaling with the values 50% and 200% will halve the horizontal size and double the vertical.

preview

This box processes the *warp* parameters on the cutout if *auto* is not highlighted.

insert

This allows nodes to be inserted on an already created curve. Select *insert* and then tap down on the position on the curve where the node is required.

auto

With this box on, the *warp* will be automatically previewed and refreshed after every modification. This slows down the speed with which changes can be made, but allows the effects of each action to be seen .

net

This box allows a *net*, or grid, of points to be set up within the curve. The *warp* distortion is then calculated using an average over the *net* points creating a more proportioned distortion. The *net* also displays the distortion graphically.

To apply a *net*, tap on *net* and then tap in the centre of a curve. If more than one curve is being used for the warp, nets may be applied to some or all of them.

To delete a *net* from a curve, select *del*, and tap in the curve.

Using a *net* increases the processing time, by averaging the distortion, but improves the smoothness of the *warp* distortion, particularly when the distortion is large.

Graphic Paintbox 2

group

This allows points on the *warp* curve to be selected as a *group*, so that they can be manipulated as one. Selecting *group - all* will include all nodes currently on-screen.

Grouped nodes are shown in blue.

A node can be added to a *group* by tapping on it with both *group* and *insert* turned on.

A node can be removed from the grouping by selecting *delete* and tapping on the node while *group* is highlighted

reset

This undoes changes made to the *warp* curve points. It will not affect inserted points or *nets*. *Reset* can be applied to individual points by tapping on the node with *reset* selected, or it can be applied to the whole curve (or set of curves) by selecting *reset - all*.

align

Selecting *align - all* will centre the current warp curve(s) on the cutout.

delete

This can be used to *delete* various attributes of the curve. Individual nodes are deleted by selecting *delete* and the desired node; an entire curve can be deleted by selecting *delete* then the curve. To remove a *net* that has been applied to a curve, select *delete* and tap in the area of the curve with the unwanted *net*.

CHAPTER 6

SETUP MENU

SETUP

Graphic Paintbox 2

SETUP MENU OVERVIEW

SETUP MENU OVERVIEW

Description

The *Setup* menu provides a number of user and ‘job’ configuration parameters:



job

Defines the ‘page size’ onto which images are to be printed or output to.

grid

Defines *grids* that are to be used either to constrain graphic items or to accurately place images in montages.

sequence

Allows the recording, editing and replay of a sequence of events entered into the control system.

artist

Used to set up user/personal working preferences.

palette

This menu controls the system’s colour palette.

luts

Details the lookup tables loaded for the (RGB, CMY and CMYK colour spaces).

print ctls

The print controls (*ctls*), allow the user to generate personal lookup tables for colour transforms.

Graphic Paintbox 2

JOB MENU

Description

The *job* menu is used to set up size and resolution parameters for the current task, defining the working scale. This also enables images from different sources (or images scanned at different resolutions) to be processed and displayed at their correct relative sizes.



Note: These value parameters are automatically extracted from an image file when the *newbgnd* function is selected in the *Library* menu.

Operation

size

The size parameter boxes are used to adjust the dimensions of the 'current job'.

Note: If these values are used to define the size of the working page, the values entered should normally include a 'bleed' (typically 3mm). A 'bleed' would then be compensated for in the 'page grid' that is defined in the *Setup - grid* menu.

426.0 h

This determines the horizontal size of the image, measured in the selected working units.

303.0 v

This determines the vertical size of the image, measured in the selected working units.

Graphic Paintbox 2

scaling

Scaling is selected to determine the current working units.

The *scaling* box can be toggled between *inch* (inches), *mm* (millimetres) or *pixel* (pixels). The selected format name will replace the word “scaling”.

Those numeric boxes within the system’s menus that define size and dimensions, will automatically be expressed in the units of measurement chosen in this menu.

12.00 / mm

Indicates the resolution at which the image was scanned, measured in the current *scale*.

Note (1): If this value is used to define the resolution of a montage image, the values entered would normally be that of the output page.

Note (2): Altering the resolution of an image will have a corresponding effect on the size of that image.

swap

Exchanges the ‘current values’ in the horizontal (h) and vertical (v) size boxes, with each pen press.

The horizontal value becomes the vertical value and vice-versa.

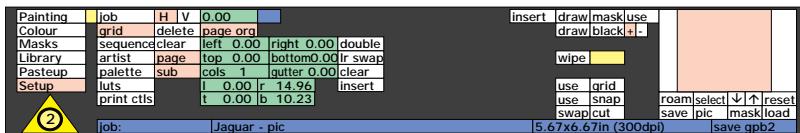
reset job

Re-configures the working store (and therefore the ‘current job’) for the parameters entered in this menu.

GRID MENU

Description

The *grid* facility is used to constrain graphics items and to accurately place images in montage work, for example. Although defined here, grids are applied with separate boxes.



See Chp 1 - “Pasteup - Grids”.



See Chp 2 - “Grids”.

Operation

H**V**

Selection of one of these boxes determines whether horizontal (*H*) or vertical (*V*) grid lines are to be inserted, positioned or deleted.

Note: Toggling the Hand Unit thumb-switch left/right enables the *H* or *V* function.

0.00

Determines the position of a grid line to be inserted (in inches, mm or pixels, as defined by the selection in the *Setup - job* menu). The value 0.0 indicates the top-left corner of the image area of the *job* setup or, if *page* is selected, the top-left corner of the page.

Graphic Paintbox 2

delete if released

Moving the pen outside the image area allows a new grid line to be 'picked up'. While the pen is outside the image area, this box will appear, indicating that if the pen is pulled out of proximity this new line will disappear.

insert if pressed

Dragging a new grid line from outside the image area over the 'current image', will prompt this message. This indicates that by tapping down with the pen on the Tablet this new grid line will be added to the current grid set up.

This colour pot

determines the colour that grid lines will be displayed in, when applied. When grid lines are in the process of being edited they will be displayed in yellow.

Note: Only one colour of grid line is available.

insert

This *insert* function (by the *draw - mask* menu boxes, at the right hand side of the menu display) can be used to duplicate the current line. Pressing once will insert the current line. Pressing again will create a duplicate line directly over the original. Press down and drag the pen to move this new line.

delete

Used to remove an existing grid line, selected with the pen. The selected item will be highlighted in yellow and will be removed when the pen is pressed onto it.

page org

'Page origin' re-defines the 0,0 point of all operations from the top-left corner of the 'job' to the top-left corner of the 'page' (defined by the top and left margins of the *Setup - grid - page* functions, described below).

GRID MENU

clear

Will wipe all existing grid lines from the screen.

page

When images are to be montaged and output as a single image, the *page* menu allows grid lines to be set-up to match the page margins, columns and gutters of the output page.

left

right

These define the left and right hand page margins respectively, with reference to the left and right hand edge of the page size, set-up in the *job* menu. These values are normally set to remove any bleed that has been applied in the *job* menu.

top

bottom

These define the top and bottom page margins respectively, with reference to the top and bottom edges of the page size, set-up in the *job* menu. These values are normally set to remove any bleed that has been applied in the *job* menu.

cols

gutter

cols is used to define the number of columns to be included in the page layout, while the *gutter* value determines the gap between each of the columns.

double

Re-defines the page grids for a double page spread.

Graphic Paintbox 2

lr swap

This swaps over the left and right (*lr*) hand page margins and gutters. This allows a single A4 page to be defined on a double page spread. When *lr swap* is selected, the page definition will move from the left-hand side to the right-hand side, and thus move the 0,0 origin.

clear

Resets all of the *page* numeric boxes back to zero (*left, right, top, bottom, cols* and *gutter*).

insert

Will apply any changes to the page layout.

SEQUENCE MENU

SEQUENCE MENU

Description

This allows the recording, editing and replay of a sequence of events entered using the control station. This facility can be used to record useful operating sequences for example, which may be required for use on a regular basis. *Sequences* can be saved to the *Library*.



Operation

show menu

Determines whether the menu and palette will be displayed when a *sequence* is replayed.

When selected (ie pink) the menu and palette are displayed and when de-selected (grey), they will not be shown.

cue dot

Will cause a *sequence* to halt during replay at a determined *cue* point. Replay will not continue until the *sequence* is prompted by the user selecting button 2 on the Hand Unit.

loop

Replays the *sequence* in a continuous loop.

0

Determines the number of times the *sequence* is replayed (ie looped). Entering a value of 0 will result in an infinite loop, aborted only by pressing down with the pen.

Graphic Paintbox 2

faster

Will replay the 'current sequence' as fast as the system is capable of performing those operations (ignoring the % value box).

%

Determines the replay speed of a recorded sequence, from 100% (the speed at which the sequence was recorded), to 1% (ie 1/100th of the speed at which the sequence was recorded).

record

Once selected, all actions are recorded until a subsequent press of this box.

shuttle

Shuttle appears after a *sequence* has been recorded or loaded into the system and enables the user to manually advance or rewind through the recorded *sequence* of events, for editing.

The Hand Unit thumb switch is pressed right to move forward, left to reverse and down (left or right) to go slower.

rewind

Returns the current *sequence* to its start point.

replay

Allows the recorded or loaded *sequence* to be played-out, controlled by the % value, or at the fastest speed possible if *faster* is selected.

on cue

There are two *on cue* menu items:

- 1 The *on cue* function to the right of *record*, allows a *sequence* to be recorded with a prompt from the Hand Unit (button 2).

SEQUENCE MENU

2 The *on cue* function to the right of *replay* allows a sequence to be **replayed** with a prompt from the Hand Unit (button 2).

ins cue

This is an abbreviation for 'Insert cue'. This function allows cues to be inserted into a previously recorded sequence.

Select *ins cue* and press button 2 of the Hand Unit at the point in the *sequence* at which the 'cue' is to be used (ie inserted).

When replaying, the *sequence* will halt at this point and the *on cue* box to the right of *replay* will be highlighted. The *sequence* will continue play-out when button 2 of the Hand Unit is selected.

sequence - 9% used - cue point inserted

This information bar details the status of the current *sequence*, the percentage of the *record* facility that has been used and the current 'record' or 'replay' state.

SETUP

Graphic Paintbox 2

ARTIST MENU

ARTIST MENU

Description

This menu is used to setup user/personal working preferences.



Operation

cursor on

Acts as an on/off toggle switch for displaying or not displaying the pen's position cursor.

When 'off' (ie this box is de-selected and grey in colour), the cursor will show when the pen is in proximity to the Tablet, but disappears as soon as pen pressure is applied.

confirm on

Provides an additional 'confirm' facility for a number of menu options, to reduce the possibility of performing potentially irretrievable actions on a given image, by accident.

The *confirm* facility is switched off by de-selecting this box.

statistics

Displays critical numeric information at the base of the screen when processing images with the menu swiped off screen. When setting up a *grid* for example, the left, right, top and bottom grid positions will be detailed.

Graphic Paintbox 2

bicubic

Recommended that bicubic is permanently highlighted. This function assists in providing sharper images when manipulating cutouts, although it can sometimes introduce 'ringing'.

1% to draw

Sets the pen pressure at which a *mask* is drawn. The range is between 1% and 90%.

20% to press

Sets the pen pressure at which a menu box is activated. The range is between 10% and 90%.

screen saver 1

Defines the number of minutes over which the display monitor will remain active without any menu functions selected and without pen operation in the image area. After this period the screen will blank until the pen is brought back into proximity, until the Hand Unit is used or until the keyboard is used.

A value of 0 will disable the *screen saver*.

colour bars

Wipes the 'current image' with full screen size colour bars, for monitor test and calibration.

colour chart

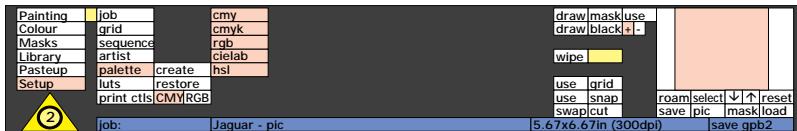
Wipes the 'current image' with a full screen size colour chart, for monitor test and calibration.

PALETTE MENU

PALETTE MENU

Description

This menu is used to control the system's colour mixing and retouching palette.



See Chp 5 - "Painting".

Operation

create pal

Create palette is used to copy a user defined section of the 'current image', which is then placed in the palette mixing area.

restore pal

Restore palette is used to overwrite the current palette colour pots with the default colours for the selected palette type (ie *cmy* or *rgb*).

The palette mixing area is unaffected by this operation.

CMY

Sets the current palette colour pots using the Cyan, Magenta and Yellow 'colour space'.

RGB

Sets the current palette colour pots using the Red, Green and Blue 'colour space'.

SETUP

Graphic Paintbox 2

cmy

Sets *cmy* (Cyan, Magenta and Yellow) 'colour space' values in the palette controls.

rgb

Sets *rgb* (Red, Green and Blue) 'colour space' values in the palette controls.

cmyk

Sets *cmyk* (Cyan, Magenta, Yellow and black) 'colour space' values in the palette controls.

cielab

Sets *cielab* 'colour space' values in the palette controls.

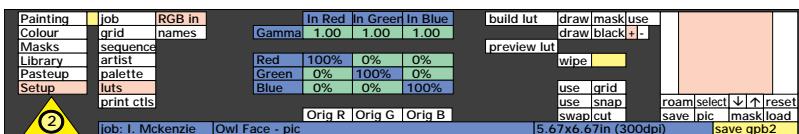
hsl

Sets *hsl* (Hue, Saturation and Luminance) 'colour space' values in the palette controls.

LUTS MENU

Description

The *Setup - luts* menu provides *RGB in* and *names* menu boxes. The *RGB in* function offers the ability to create a user defined RGB lookup table (LUT). The *names* function recalls the list of current lookup tables that are to be used for the transfer of images with different colour spaces into or out of the system. The colour spaces listed are RGB, CMY and CMYK 'in' and 'out' lookup tables.



Note: When a new lookup table is loaded from the *Library*, it becomes the current LUT for the associated file type (ie RGB, CMY or CMYK).

Operation

A RGB IN

RGB in

Allows a user defined RGB LUT to be created and previewed before being saved to the *Library*. This LUT is generated by adding or removing percentages of other separations to or from a selected separation (ie the columns *In Red*, *In Green* & *In Blue*), to alter the prominence of that colour wherever it appears in the current image.

Each column details the separation to be affected.

In each row where a green numeric box appears, the degree of the other separations present in the chosen separation can be increased or decreased. Negative values brighten and positive values darken.

Graphic Paintbox 2

In Red

Altering the green numeric boxes that are in the line of menu boxes below this **column** heading will alter the brightness of the Red separation only, wherever red appears in the current image.

In Green

Altering the green numeric boxes that are in the line of menu boxes below this **column** heading will alter the brightness of the Green separation only, wherever red appears in the current image.

In Blue

Altering the green numeric boxes that are in the line of menu boxes below this **column** heading will alter the brightness of the Blue separation only, wherever red appears in the current image.

Gamma

1.00

Gamma defines the relationship of the output density to the original density (ie changes in brightness), across the mid-tones. The affect of altering the *gamma* value is to change all the mid-tone proportionally about a mid-point.

The *gamma* value for each separation can be altered independently by entering a value in the green numeric box below the **column** headings (ie *In Red*, *In Green* and *In Blue* respectively).

The default *gamma* value of 1 means that no correction is applied. Changes in the range +/- 0.1 are usually applicable.

Note: changing the *gamma* value will affect the grey tones as well as the selected separation.

LUTS MENU

Red

When the amount of red that appears in the Green or Blue separation of the current image is to be amended, the corresponding green numeric box below the *In Green* or *In Blue* column and to the right of the *Red* menu box, is selected and a +/- percentage value entered.

The blue numeric box to the right of *Red*, details the overall percentage change to the amount of red present in the red separation when the corresponding *Green* and *Blue* values are altered for the *In Red* column.

Green

When the amount of green that appears in the Red or Blue separation of the current image is to be amended, the corresponding green numeric box below the *In Red* or *In Blue* column and to the right of the *Green* menu box, is selected and a +/- percentage value entered.

The blue numeric box to the right of *Green*, details the overall percentage change to the amount of green present in the green separation when the corresponding *Red* and *Blue* values are altered for the *In Green* column.

Blue

To alter the amount of blue in the Red or Green separation of the current image, the corresponding green numeric box below the *In Red* or *In Green* column and to the right of the *Blue* menu box, is selected and a +/- percentage value entered.

The blue numeric box to the right of *Blue*, details the overall percentage change to the amount of blue present in the blue separation when the corresponding *Red* and *Green* values are altered for the *In Blue* column.

Graphic Paintbox 2

0%

These numeric boxes allow the percentage of one separation that appears in another separation to be increased or decreased.

The separation that is to be affected is defined as the columns *In Red*, *In Green* and *In Blue*.

The separation that is being increased or decreased is determined by the rows; ie *Red*, *Green* or *Blue*.

100%

These numeric boxes detail the percentage change of a separation from its start percentage in the original image (ie from 100%).

The blue box found in the *In Red* column details the percentage change in red over the current image.

The blue box found in the *In Green* column details the percentage change in green over the current image.

The blue box found in the *In Blue* column details the percentage change in blue over the current image.

Orig R

This resets the red separation to its default; ie 100% Red / 0% change in Green, 0% change in Blue and a Gamma value of 1.

Orig G

This resets the Green separation to its default; ie 100% Green / 0% change in Red, 0% change in Blue and a gamma of value of 1.

Orig B

This resets the Blue separation to its default; ie 100% Blue / 0% change in Red, 0% change in Green and a gamma value of 1.

LUTS MENU

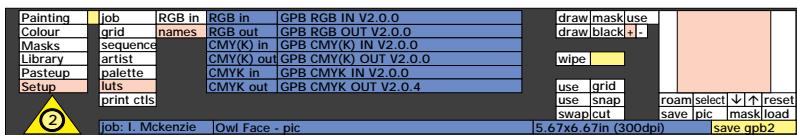
build lut

Uses the current red, green and blue percentage parameters to create a lookup table. This LUT is not applied until *preview lut* is selected and is not saved until manually saved in the *Library*.

preview lut

Will apply the current LUT parameters as to the current image. This LUT will only be applied for as long as the *preview lut* function is held selected. Note that if *build lut* was not selected since the parameters last changed, *preview lut* will first have to build the LUT itself which will cause a delay before the preview.

B NAMES



RGB in

RGB IN V*.*

Details the lookup table for the transfer of an RGB image into the system, where 'V*.*' is the current lookup table.

RGB out

RGB OUT V*.*

Details the lookup table for the transfer of an RGB image out of the system, where 'V*.*' is the current lookup table.

CMY in

CMY(K) IN V*.*

Details the lookup table for the transfer of a CMY image into the system, where 'V*.*' is the current lookup table.

SETUP

Graphic Paintbox 2

CMY out

CMY(K) OUT V*.* Details the lookup table for the transfer of a CMY image out of the system, where 'V*.*' is the current lookup table.

CMYK in

CMYK IN AV*.* Details the lookup table for the transfer of a CMYK image into the system, where 'V*.*' is the current lookup table.

CMYK out

CMYK OUT V*.* Details the lookup table for the transfer of a CMYK image out of the system, where 'V*.*' is the current lookup table.

RGB render

rgb render V*.* Details the lookup table for the import of RGB data where the image will eventually be printed using CMYK (RGB for CMYK), where 'V*.*' is the current lookup table.

PRINT CONTROLS

PRINT CONTROLS

Description

The *Setup - print cts* menu provides a full set of print related controls, which enable the user to generate their own print lookup tables (LUT's), in both *cmy* and *cmyk* colour spaces.

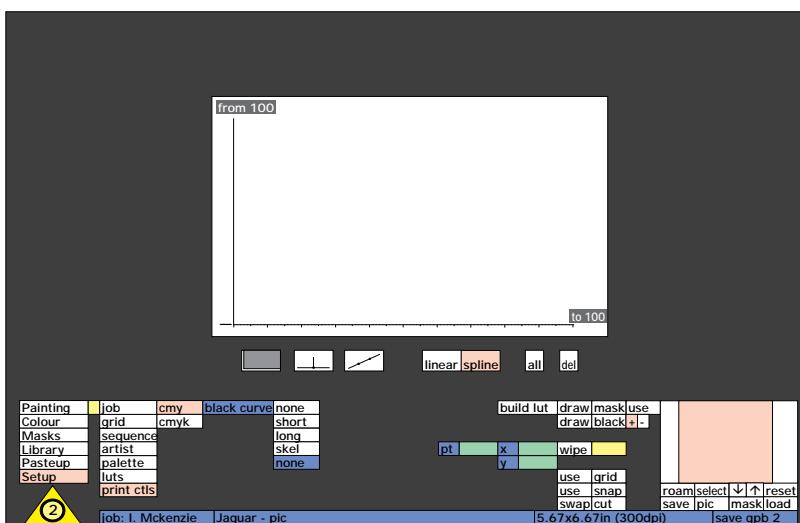


Operation

A PRINT CTLs - CMY MENU

cmy

Recalls the menu functions which enable a user defined cmy lookup table to be created.



SETUP

Graphic Paintbox 2

black curve

This information box indicates that the curve to be generated in *cmy* is a 'black curve'.

This 'black curve' will control the way in which black correction is applied to Cyan, Magenta and Yellow components.

none

Indicates that no 'black' is to be applied; ie the display graph will be cleared.

none

This blue information box (in this example stating "none"), indicates which of the curve types is currently selected.

Note: This box will state "user" when a graph is manually altered from any one of the system presets.

build lut

Processes the 'lookup table' for the current parameters.

pt

Stands for 'point'. This refers to the nodes which make up a curve. Selecting *pt* recalls the number pad to enter a node number. Any manipulation of the *x* and *y* boxes (*see below*) will then apply to the selected node.

x

This controls the movement of the currently selected node in the *x* (horizontal) axis.

y

This controls the movement of the currently selected node in the *y* (vertical) axis.

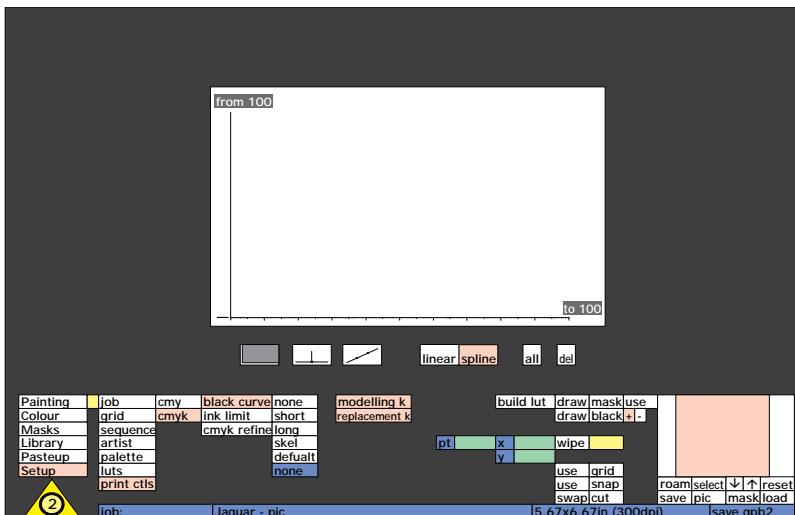
PRINT CONTROLS

B PRINT CTLs - CMYK MENU

cmyk

Recalls the menu functions that will enable a user defined *cmyk* lookup table to be created.

i Print Ctls - Cmyk - Black Curve



black curve

Enables custom black curves to be designed and created.

none

No black curve is to be generated (ie the graph will be cleared of all current information).

default

Applies the default black curve which has the effect of smoothly adding black.

none

This blue information box (in this example stating "none"), indicates which of the curve types is currently selected. **Note:** This box states "user" when a graph is manually altered from any one of the system presets.

Graphic Paintbox 2

modelling k

Modelling black (k), adds black into the Cyan, Magenta and Yellow components, to add detail and contrast to colours which are difficult to print (such as deep reds and blues for example).

Black modelling is normally applied and should only be turned off to achieve specific output results; ie flat tints with no black content.

replacement k

Replacement black (k), will automatically add more black to compensate for any *UCR* or *GCR* reduction of the Cyan, Magenta or Yellow values.

build lut

Processes the 'lookup table' for the current parameters.

pt

Stands for 'point'. This refers to the nodes which make up a curve. Selecting *pt* recalls the number pad to enter a node number. Any manipulation of the *x* and *y* boxes (see below) will then apply to the selected node.

X

This controls the movement of the currently selected node in the *x* (horizontal) axis.

Y

This controls the movement of the currently selected node in the *y* (vertical) axis.

PRINT CONTROLS

ii Print Ctls - Cmyk - Ink Limit

ink limit

The 'ink limiting' controls determine the amount of ink that will be printed on output, in any one position.

The ink limiting controls can be further sub divided into *UCR* and *GCR*.

none

Indicates the no 'ink limiting' is to be applied.

This will reset the graph.

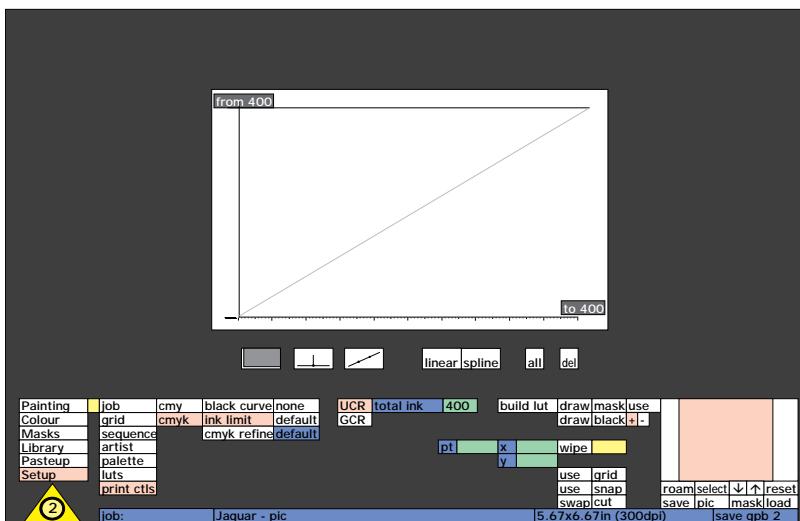
default

Applies the default 'ink limiting' graph; ie a smooth application of *UCR* and *GCR*.

default

This blue information box (in this example stating "default"), indicates which of the curve types is currently selected.

Note: This box will state "user" when a graph is manually altered from any one of the system presets.



Graphic Paintbox 2

UCR

Under Colour Removal.

UCR is used to calculate and reduce the total amount of ink put down on any one point on the paper, on output.

UCR is applied by calculating the grey component for each principle colour (CMYK) and then reducing the amount of grey component to ensure that the colour is printed within the total ink limit:

total ink

400

This value sets the total ink limit; ie a value beyond which the percentage of ink used to produce the principle colours in a given image, added together, must not exceed. Where this value is exceeded, *UCR* is applied.

Note: To apply a new *total ink* value, enter the required value and then select *none* or *default*, as appropriate. If one of these functions is not selected, no change will be applied to the current graph.

GCR

Grey Component Removal.

To compensate for the problem of ink impurities, GCR is applied to ensure that black is correctly printed on the output page. GCR achieves this by removing a percentage of grey component from Cyan, Magenta and Yellow, which is compensated for with a black replacement.

replacement

50%

Determines the level of black replacement; ie the amount of grey from the 'current image' that is to be replaced with black. To apply a new *replacement* value, select either *none* or *default*, as appropriate. If one of these boxes is not selected, the *replacement* value will not be applied to the current graph.

PRINT CONTROLS

build lut

Processes the 'lookup table' for the current parameters.

pt

Stands for 'point'. This refers to the nodes which make up a curve. Selecting *pt* recalls the number pad to enter a node number. Any manipulation of the *x* and *y* boxes (*see below*) will then apply to the selected node.

X

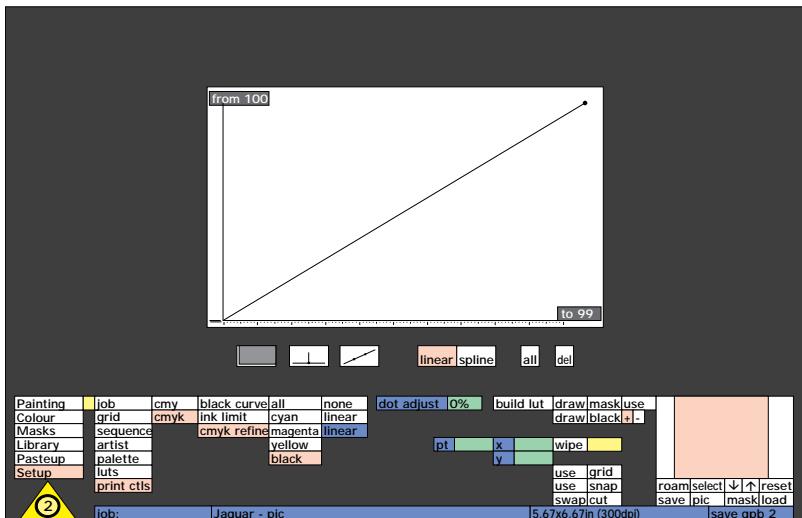
This controls the movement of the currently selected node in the *x* (horizontal) axis.

Y

This controls the movement of the currently selected node in the *y* (vertical) axis.

Graphic Paintbox 2

iii Print Ctl - Cmyk - Cmyk refine



cmyk refine

The colour representation of an output device may not be accurate for all combinations of Cyan, Magenta, Yellow and Black, and so the *cmyk refine* function enables correction curves to be independently calibrated, for all or for each of these principle colours.

all

Applies the correction curve to the CMY and K components as a group.

Note: The last curve set up will be copied to all colours on selecting this box.

cyan

Applies the correction curve to just the Cyan component. The graph line will appear in cyan.

PRINT CONTROLS

yellow

Applies the correction curve to just the Yellow component. The graph line will appear in yellow.

magenta

Applies the correction curve to the Magenta component only. The graph line will appear in magenta.

black

Applies the correction curve to just the Black component. The graph line will appear in black.

none

Removes the current graph display.

linear

Resets the correction curve to produce a default linear graph; ie pixel value input is the same as pixel value output.

linear

This blue information box (in this example stating “linear”), indicates which of the curve types is currently selected.

Note: This box will state “user” when a graph is manually altered from any one of the system presets.

Graphic Paintbox 2

dot adjust

0%

This percentage value determines the amount of additional ink that will be applied to the image at any given point on output to paper, to compensate for changes in the half-tone dot size that occur as a result of plate making and lithographic printing process.

A percentage value of 0% will mean that output will be linear through the system.

build lut

Processes the 'lookup table' for the current parameters.

pt

Stands for 'point'. This refers to the nodes which make up a curve. Selecting *pt* recalls the number pad to enter a node number. Any manipulation of the 'x' and 'y' boxes (*see below*) will then apply to the selected node.

X

This controls the movement of the currently selected node in the 'x' (horizontal) axis.

Y

This controls the movement of the currently selected node in the 'y' (vertical) axis.

PRINT CONTROLS

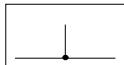
C PRINT CTLs - GRAPH FUNCTIONS



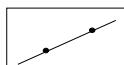
Turns the graph 'zoom' function, on or off (ie toggles between the two states).



F For 'zoom' operation details, please refer to Chp 5 - "Print Controls".



Displays tangential lines for each point on the current graph. These lines can be dragged to reposition the corresponding point and so amend the current curve.



Dragging or manipulating the current curve or graph in one position, will produce a mirror image of that action at the opposite side of the current curve.

linear

Produces a linear transition (ie straight lines) between the next inserted point and the points either side.

Selecting *lin - all* will redraw the current curve with a linear transition between all points on the current curve.

spline

Produces a curve *spline* transition between points on the current graph.

all

Will apply the currently selected curve style to all the points on the current graph.

del

Will remove the selected points from the current graph. If *del - all* is selected, all the current points will be removed from the current graph.



F For further graph control information, see *Fundamentals chp 5 - "Print Controls"*.

SETUP

Graphic Paintbox 2

CHAPTER 7

FULL PAGE MENU

FULL PAGE

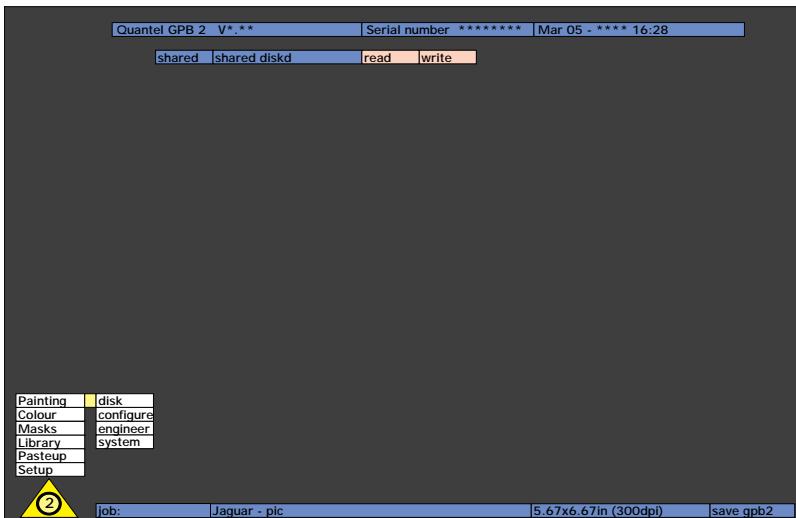
Graphic Paintbox 2

FULL PAGE OVERVIEW

Description

Pressing a major menu function twice (for example, *Painting*) displays the system's *Full Page* menu. This menu is divided into various parts.

At the top of the display is the system's 'Identification Bar'. Below this is the 'Disk Status' menu (also known as the 'Disk Block') and at the base of the screen are the system's configuration menus.



Graphic Paintbox 2

System Identification Bar

Quantel GPB2 V*.*

This indicates the current version of system software (where "V*.*" is the current version).

Serial Number *****

This indicates the system's serial number (where "*****" is the serial number).

Mar - 05 - *** 16:28

This indicates the current date and time as known by the system. The date is given as the month, the day of the month and the year (where "***" is the year). The time is detailed in 24hr clock format.

Disk Block

The top part of the *Full Page* menu indicates the current configuration and set-up of the system's disks. There are two types of disks recognised by the system, 'fixed disk' and 'removable disks'.



shared

This refers to fixed disks that are physically connected to the Mainframe. The actual disk to be used is enabled by selecting this box and *read/write* as appropriate.

Note: Tapping on the *shared* box will open a second line of information boxes detailing the available memory in Megabytes and the percentage of disk space still available.

FULL PAGE OVERVIEW

FULL PAGE

removable

Refers to 'removable disks' (ie Magneto Optical disks) that are connected to the system. The actual 'removable disk' to be used is enabled by selecting the *removable* box and *read/write* as appropriate.

Note: Tapping on the *removable* box will open a second line of information boxes detailing the available memory in Megabytes and the percentage of disk space still available.

read

Indicates the accessibility of the relevant disks.

When selected (ie pink) the associated disks can be searched (ie *read*) from the *Library* menu. When grey, they are de-selected and cannot be 'read'.

write

Selects the disks that items can be written (ie *added*) to.

Only one set of disks can be written to at any one time. When *write* is selected (ie pink), items can be recorded to the appropriate disks, but when grey they are de-selected and not accessible for writing to.

ready

Indicates that the relevant disk is operational and ready for use. When pressed this box will display the percentage of disk space still available for writing to.

Graphic Paintbox 2

Full Page Menus

The following *Full Page* sub-menus are available for accessing the system's set-up and configuration facilities:



disk

This menu is used to format and initialise the system's magnetic disk media.

configure

This menu is used to configure the system's serial ports for use with various other equipment.

engineer

This menu is used to set-up the system's analogue monitor outputs.

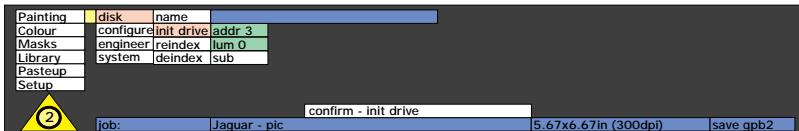
system

This menu is used to load new software, fonts and brushes onto the system.

DISK MENU

Description

This menu is used to configure the system's magnetic disk media, including the system's integral Disk and Magneto Optical disk drives.



Operation

name

Recalls the soft keyboard to allow a disk to be assigned a user defined title.

init drive

Initialises a disk for use as a picture or archive disk.



See “*Initialise Drive*” in this chapter.

reindex

The system's “index filing” function allows fast searching of *Library* entries.

For “index filing” to operate correctly, all attached disks must be indexed with the *reindex* function.

deindex

De-activates the *reindex* function.

Graphic Paintbox 2

Initialize Drive

These functions allow a new disk to be initialised for use as an image disk.

 **Caution 12: Do not use *init drive* on the system disk without instruction from Quantel as this will completely destroy the contents of the disk, deleting all system software and preventing the system from operating (05/95).**

 The blue information box details the name of the disk that is currently selected to be initialised.

addr

This is the scsi address of the drive that is to be initialised.

lun

This is the Logical Unit Number (always 0) of the selected drive to be initialised.

sub

This selects scsi A (de-selected) or scsi B (selected; ie pink).

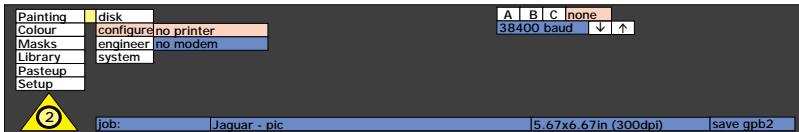
The procedure for initialising disks is as follows:

- 1 Insert a new Magneto Optical disk into the drive and select the *Full Page* menu.
- 2 Disable the *write* function for all other disks before selecting the *disk* menu and the *init drive* function.
- 3 Enter the scsi *address* (the *lun* is always set to zero) and then select the *confirm init drive* box at the base of the screen, to process the function.
- 4 When complete, the disk status line will state “on line”.

CONFIGURE MENU

Description

This menu is used to configure the system's video inputs/outputs and serial ports A, B and C for use with other equipment. The facilities are as follows:



Operation

printer

Allows directory information to be routed to a printer or to a VDU connected to the 'printer port', at a selected baud rate. Information to be sent via the printer is accessed from the *Library* menu.

A

Configures 'serial port' A for use with a printer.

B

Configures 'serial port' B for use with a printer.

C

Configures 'serial port' C for use with a printer.

None

This disables all printer ports.

Graphic Paintbox 2

38400 baud

Defines the current baud rate (300, 600, 1200, 2400, 4800, 9600 or 38400).

↑

Toggles up through the available baud rates.

↓

Toggles down through the available baud rates.

modem

This is used to configure serial port A on the rear of the mainframe for use with an external modem, to allow remote diagnostics to be performed.

This facility allows Quantel service personnel to verify that the system is operating correctly. Contact your nearest Quantel support centre for details.

enable

Initialises the modem connected to serial port A to match the requirements of the modem at the Quantel support centre. Enable should only be used after a baud rate of 2400 has been selected.

The blue status box which appears at the base of the menu, displays any comments on the current status of the modem link and lists any commands sent to the system.

restore 19200

This returns the system to its normal operating speed.

The system's operating speed is significantly reduced during remote diagnostics and so this function should always be selected on completing a diagnostics session.

CONFIGURE MENU

FULL PAGE

setup

Configures the system for use with a modem connected to the selected serial port.

2400 baud

A baud rate of 2400 must be used at both ends of the modem link.

↑

Toggles backwards from the current rate, through all the available baud rates.

↓

Toggles forwards from the current rate, through all the available baud rates.

shutup

Prevents the modem from “echoing” back commands that have been sent by the system. Any “echo” commands will be displayed in the blue information box at the base of the screen.

online

By selecting the *online* function after *enable* has been pressed, the modem is assumed to be already initialised and connected to the Quantel service centre.

terminal

This function allows the ‘on-screen’ terminal to be configured and enables commands to be sent direct from the keyboard.

The *terminal* function can be used to check the operation of the link to the modem, and to check the modem itself. Terminal mode can be cancelled by either pressing the <ESC> key on the keyboard or by pressing the pen down in the image area.

Graphic Paintbox 2

local echo

Any commands sent to the Quantel service centre, are 'echoed' on screen.

remote echo

Any commands that are sent by modem at the Quantel service centre, are 'echoed' back to the system.

enable

Enables the 'on-screen' terminal.

ENGINEER MENU

Description



☞ **Caution 1: Maintenance and Calibration of this equipment must only be performed by trained and qualified maintenance personnel. Unless otherwise stated, only the procedures detailed in this documentation can be performed by the user (05/95).**

Note: The following functions are intended for Quantel personnel only.

Operation

video ampl

Allows the overall output amplitude of the monitor video to be adjusted

L gain

Allows the 'L' gain of the monitor video to be finely adjusted.

a gain

Allows the 'a' gain of the output monitor video to be finely adjusted.

b gain

Allows the 'b' gain of the output monitor video to be finely adjusted.

sync gain

Enables adjustment of the synchronising pulse amplitude of the monitor output.

Graphic Paintbox 2

gamma

Alters the gamma of the monitor. It is recommended that the gamma setting remains at 0.80.

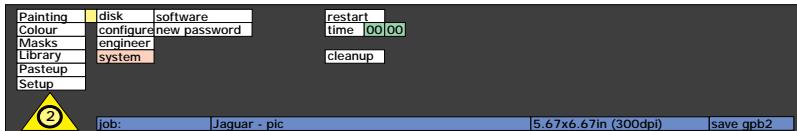
reset output

Will automatically reset the values of the *engineer* menu to their defaults.

SYSTEM MENU

Description

This menu is used to load system software, text fonts and brushes on to the system disk 0, as well as providing file 'house keeping' routines.



Operation

software

Allows new system operating software to be loaded from the Magneto Optical disk.



See "Software Menu" in this chapter.

new password

New passwords, provided by Quantel, are principally used to enable system software options after purchase. This recalls the soft keyboard for the text of the new password to be entered. After entering the text, select the *end* function and then *restart*.

restart

Used to restart the system after a hard disk has been initialised so that the system can start-up with the correct disk configuration.

To process the *restart*, select *confirm - restart*, displayed at the base of the screen.

Graphic Paintbox 2

time

Allows the system clock to be set. When selected, the following two numeric boxes show the current time (in 24hr clock format), as known by the system.

00

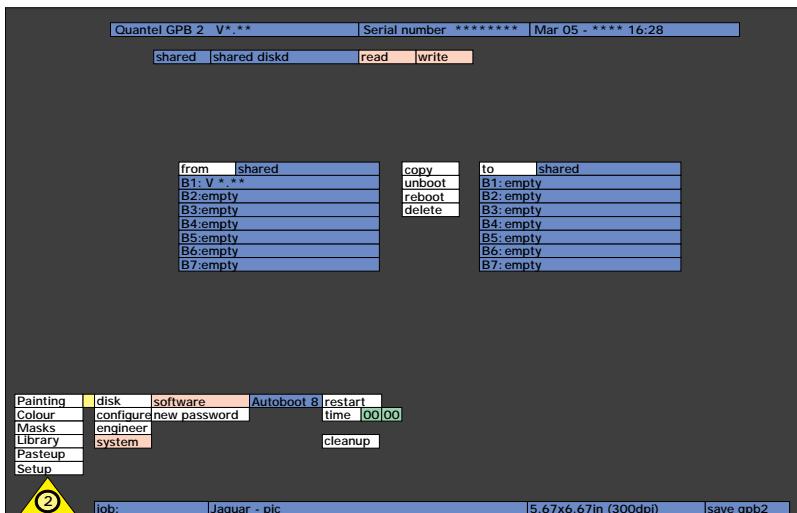
00

These define the time in 24hr clock format, in hours and minutes respectively. To use the new time entered, select *confirm - set time*, displayed at the base of the screen.

clean up

Re-writes the system menus, should they become corrupted. To process *cleanup*, select *confirm - cleanup*, displayed at the base of the screen.

A SOFTWARE MENU



from

to

The *from* box recalls a list of available disks to indicate where software is to be copied, moved or rebooted 'from'.

SYSTEM MENU

FULL PAGE

The *to* box recalls a list of available disks to indicate where software is to be transferred ‘to’.

The available *from* and *to* disks are:

system

Selected to access the system disk.

shared

Selected to access the shared disk.

magopt

Selected to access the Magneto Optical disk.

sub

When de-selected (ie grey) scsi A is selected. When highlighted (ie pink), scsi B is selected and the letter “B” will appear next to the magopt title in the appropriate information box (*see below*). Scsi B must be selected to access a Magneto Optical ‘boot’ list.

scsi 3

This is used to set up the scsi address for the Magneto Optical disk. The selected scsi address number will be detailed next to the *magopt* title in the information box (*see below*).

Note: After selecting the required disk, press *from* or *to* (as appropriate) a second time, to confirm the operation. The list of disks will close and the ‘boot’ addresses for that disk will be displayed.

shared

This information box (one to the right of the *from* box and one to the right of the *to* box) details the currently selected disk; ie *system*, *shared* or *magopt*.

Graphic Paintbox 2

1: V*:**

The blue information boxes below *from* and *to*, numbered 1 to 7, are the drive boot address numbers and will list any software in those locations, or will otherwise state “empty”. If the disk selected is not currently available, they will state “no boot list”.

copy

Allows the software in a selected ‘boot’ location to be copied to another ‘empty’ boot location. Highlight the boot location that is to be copied, select *copy* and then tap on the boot location where the duplicate is to be placed. Select *confirm* to process the *copy*.

unboot

This function is for use by Quantel Support Engineers only.

reboot

The *from* boot location “1:” is automatically selected on system power-up and should therefore contain the latest version of the software. Older versions can be run using the *reboot* function; ie Select *reboot* and then tap on the boot location that contains the software version you wish to run. Process the *reboot* with *confirm*.

delete

This allows the software in any ‘boot’ location to be removed. Select *delete* and then tap on the boot location that is to be emptied (**Note:** *Delete* permanently removes the selected item). Select *confirm* to process the *delete*.

When the *delete* process is complete, the appropriate ‘boot’ location will state “empty”.

confirm

The *confirm* box is used as a ‘double check’ on any software operation. It will appear in the screen display when a *copy*, *unboot*, *reboot* or *delete* function is to be made.

SYSTEM MENU

FULL PAGE

The *confirm* box must be selected to process the appropriate function.

autoboot 1

Indicates the currently selected system operating software, boot file (ie number 1).



See Fundamentals - chp 4 - “Loading New Software”.

Graphic Paintbox 2

APPENDIX A

MAC TCP/IP

TCP / IP

Graphic Paintbox 2

MAC TCP/IP

Introduction

This chapter details some of the information required for setting up TCP/IP on a Macintosh system. It should not be regarded as definitive and should always be read in conjunction with any documentation supplied with the Macintosh and the documentation for the software which is or will be installed.

Installing TCP/IP

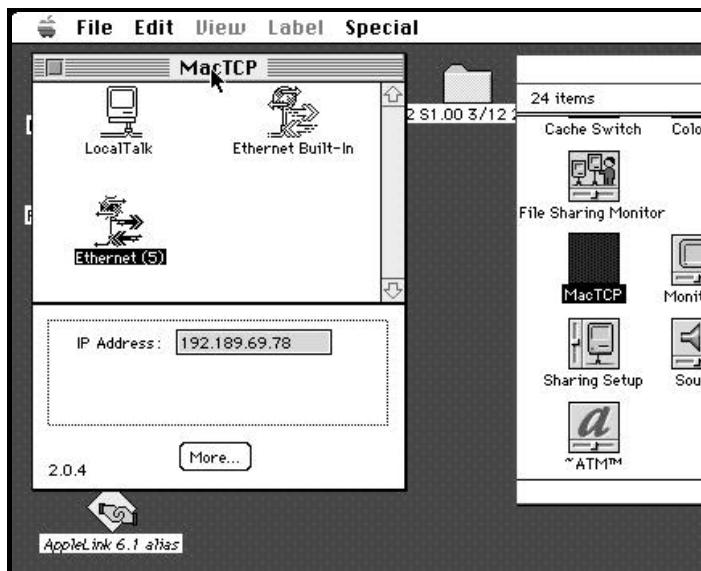
A USING MacTCP

- i If the Macintosh does not have MacTCP already installed then it should be loaded from the TCP/IP Connection disk. This operation should include the copying of the **Hosts** file and the **MacTCP Ping** application (found in the **TCP/IP Utilities** folder), from the disk into the Macintosh System Folder.
- ii Once this operation is complete, shut down the Macintosh and install the 100 MBit Ethernet card.
- iii Restart the Macintosh and install the Ethernet card driver.
This operation usually involves inserting the driver disk and then double clicking on the installer script, but reference should be made to the Ethernet card's own manual for further information and instruction.
- iv Double click on the **Hosts** file in the system folder.
- v Add a new line at the end with the GPB2 address ie:
gpb2.com A 192.189.69.41 ; Comments
Note: The GPB2 address that you insert at this point **must** match the Snetcomm Address.
- vi Close the **Hosts** file (using the 'close' box in the top left hand corner). You will be asked to confirm any changes and so '**Save**' should be selected.
- vii Select the **MacTCP Control Panel** from the control panels in the **Apple** menu.

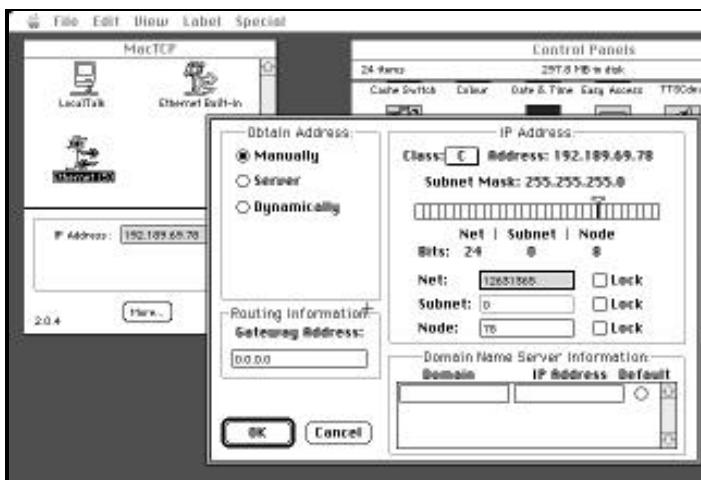
Graphic Paintbox 2

viii If the Ethernet card is installed correctly then it will appear as an icon in the top of the panel. This icon will be marked **Ethernet** with a number in brackets which corresponds to the card's slot number in the Macintosh.

Click on the icon to select it as the connection port.



ix Click on the **More** box.



- x Set the **Obtain Address** section to **Manually**.
This will ensure that the Macintosh will always use the IP Address in the 'MacTCP Control Panel' as its own IP Address.
- xi Go to the **Class** menu in the IP Address section and set it to class **C**.
This operation will automatically set-up the items below this box on the screen.
- xii No further boxes need to be altered in this dialog so close it (ie select **OK**) and return to the top level control panel.
- xiii The IP Address for the Macintosh can be entered in the **IP Address** box.
Once this is done, close the control panel and restart the Macintosh.
- xiv The Macintosh should now be correctly configured. This can be verified by using **MacTCP Ping** to check the link between the Macintosh and the GPB2 (See **MacTCP Ping in this document**).

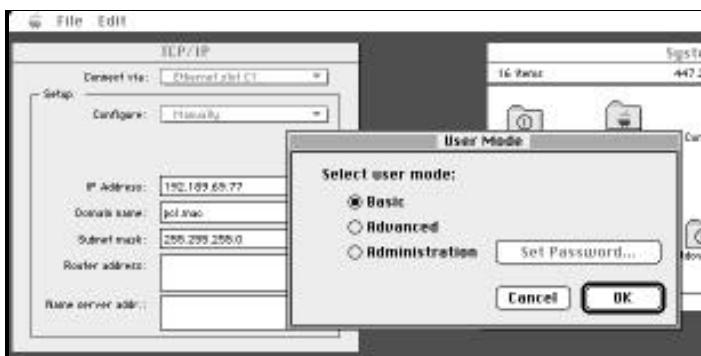
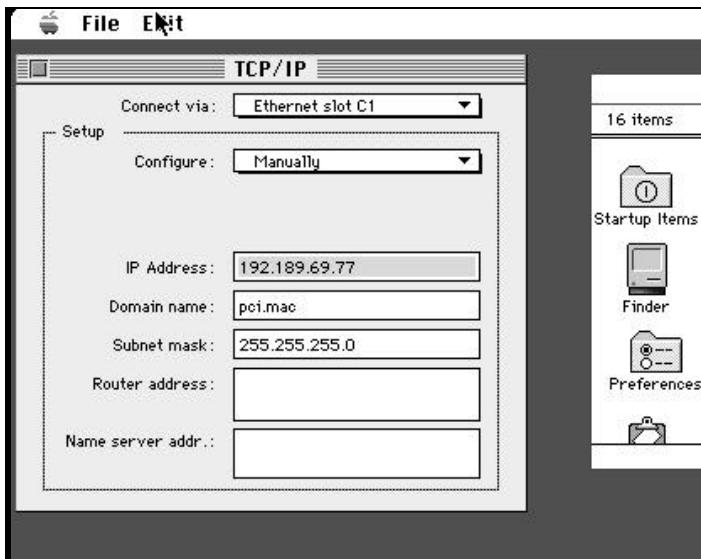
B USING Open Transport

- i Check the System version on the Macintosh ie:
Select **About this Macintosh**.... If it is less than System 7.5.2v2 then it must be updated.
- ii Check the **Open Transport** version on the Macintosh; ie
Open the **TCP/IP** Control Panel and then select **Get Info** in the **File** menu. If it is less than 1.0.8 then it must be updated.
- iii Once this operation is complete, shut down the Macintosh and then install the 100 MBit Ethernet card.
- iv Restart the Macintosh and install the Ethernet card driver.
This operation usually involves inserting the driver disk and then double clicking on the installer script, but reference should be made to the Ethernet card's own manual for further information and instruction.
- v Double click on the **Hosts** file in the system folder. If there is no **Hosts** file then copy one from the TCP/IP 'Connection' disk into the system folder.
- vi Add a new line at the end with the GPB2 address ie:
gpb2.com A 192.189.69.41 ; Comments

Graphic Paintbox 2

Note: The GPB2 address that you insert at this point must match the Snetcomm Address.

- vii Close the **Hosts** file (using the 'close' box in the top left hand corner). You will be asked to confirm any changes and so '**Save**' should be selected.
- viii Select the **TCP/IP** control panel and then select **User Mode...** from the **Edit** menu.



ix Choose the **Advanced** mode then select **OK**.
The TCP/IP control panel should now expand to detail extra controls.

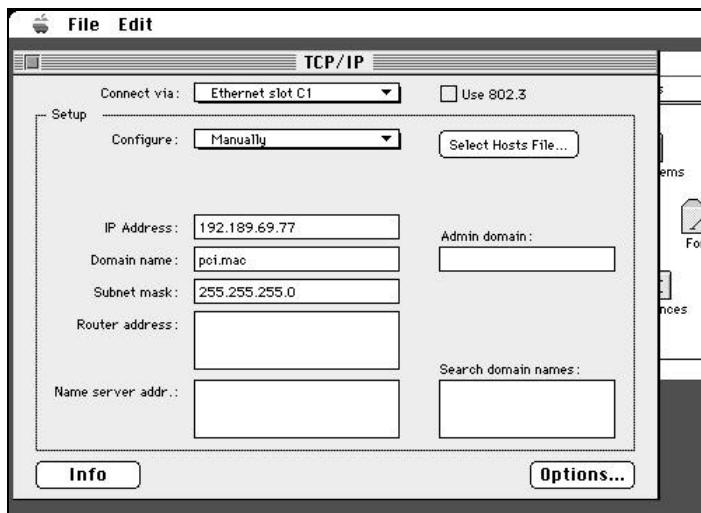
x If the Ethernet card was installed correctly then it will be shown in the 'Connect via' menu at the top of the panel. It will be marked 'Ethernet slot' and will detail the card's slot number in the Macintosh. Click on this item to select it as the connection port.

xi Set the **Configure** menu to **Manually**.

xii Enter the IP Address for the Macintosh in the box below.
The Macintosh will always use this Address as its own IP Address.

xiii In the **Subnet** box mask box, enter the following number:
255.255.255.0
This is standard for a **Class C** Address.

xiv If the version of Open Transport in use is earlier than 1.1 then it will have a **Domain name** box. This box is unused but must be set to poi.mac.



Graphic Paintbox 2

xv Press the **Select Hosts File...** button.

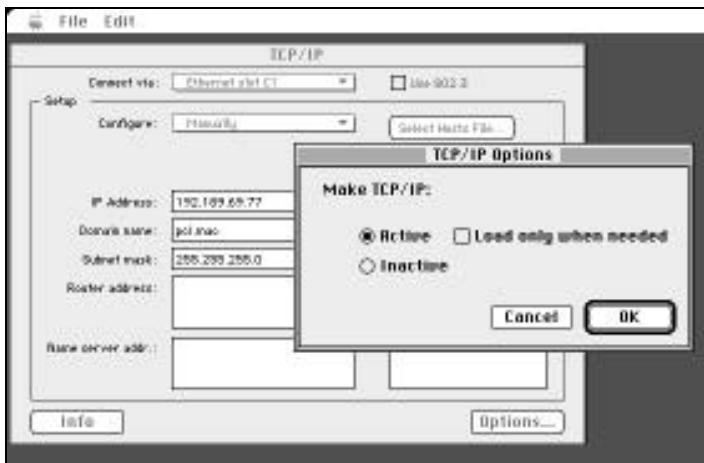
A standard file dialog will appear and it must be set to the **Hosts** file in the system folder that was edited earlier. The Macintosh will show any errors in the **Hosts** file when it is selected and will ask for confirmation of selection.

Note: If the **Hosts** file is ever updated then you must do the **Select Hosts File ...** procedure again, otherwise the TCP/IP control will not see the changes.

xvi Press the **options** box in the in the control panel.

Make sure that the dialog which appears has **TCP/IP** set to **active**.

If the **Load only when needed** box is checked then click on it to remove the cross. This means that TCP/IP is constantly active in the Macintosh.



xvii Close the dialog box.

No more changes to the control panel are required. It can therefore be closed using the close box and the Macintosh will ask for the changes to be confirmed. After confirmation and after the panel has closed, restart the Macintosh.

The Macintosh should now be configured correctly. This can be verified by using **MacTCP Ping** the check the link between the Macintosh and GPB2.

Note: There are differences between the Open Transport 1.0.8 TCP/IP control panel layout and the Open Transport 1.1 version. The extra boxes in this display can be ignored.

Mac TCP Ping

MacTCP Ping is the utility that checks to see if the Macintosh can see the GPB2 system:

Select **MacTCP Ping** from **MacTCP**.

This will provide a menu of 'Host Addresses' (from the **Hosts** file) in the **Ping Host Address PopUp - Menu**.

Select the GPB 2 **Hostname** and it will appear in the text box besides the menu.

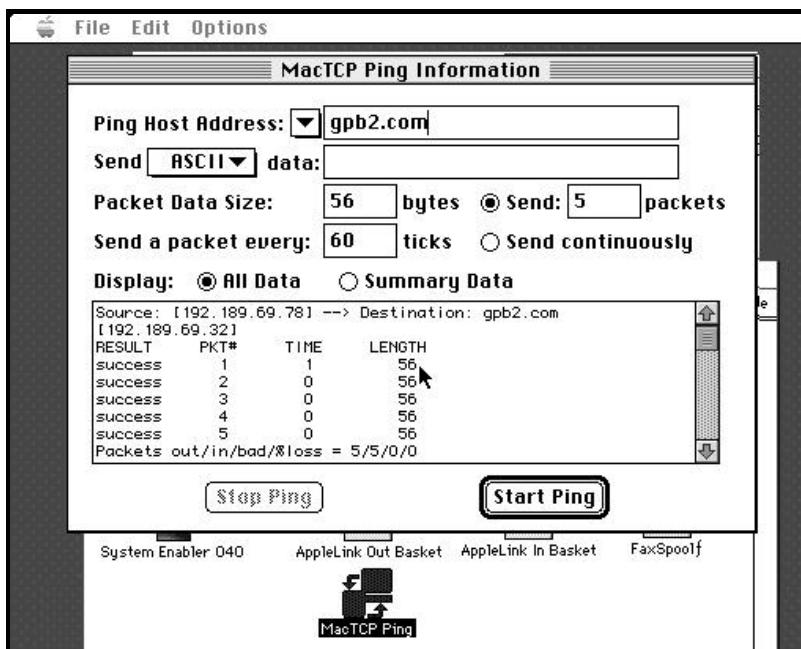
MacTCP Ping under the Open Transport system may take up to 10 seconds to launch the first time it is attempted. Also under the Open Transport system, the **Ping Host Address PopUp-Menu** is permanently disabled (even if there are **Hostnames** in the **Hosts** file), so the **Hostnames** must be entered in the text box beside the menu.

All other boxes should default to the values in the diagrams which follow. In particular, do not set the **Record Route** or **Show IP Address** items in the **Options** menu.

MacTCP Ping (and the **Mac GPB2** application) can accept **IP Addresses** rather than **Hostnames**.

When the **Start Ping** button is pressed, **MacTCP Ping** attempts to 'resolve' (ie find and confirm) the **Hostname** using the **Hosts** file. If this is successful it then attempts to 'ping' the GPB2. The Macintosh must be able to 'ping' the GPB2 or the **Mac GPB2** application will not work.

Graphic Paintbox 2



Note (1): The Macintosh must take the **Hostname** and 'resolve' it, using the **Hosts** file, to an **IP Address**. This is solely down to **MacTCP** or **Open Transport** and the **Hosts** file.

Note (2): The Macintosh takes the **IP Address** and then tries to contact the GPB2 through the connection port. This is down to the **MacTCP** or **Open Transport**, the Ethernet card (and driver), the Cable and the Network (ie any 'Hubs' that are in use and the Snetcomm).

MacTCP Ping Problems

A NO RESOLVE

If the Macintosh will not 'resolve' the **Hostname** check for one of the following problems:

- i The GPB 2 Address given in the **Hosts** file and Macintosh Address given in the **MacTCP** or **TCP/IP** control panel **must be different**, or the Macintosh will not attempt the 'resolve'.
- ii The GPB 2 **Hostname** in the **Hosts** file and the **Hostname** that is given to the **Ping must be identical**.
- iii After any change to the **Hosts** file, or to the control panel, the Macintosh must be restarted.
- iv Check for comments (ie semi-colons) in the **Hosts** file and check that the **Hosts** file is in the system folder.
- v If the Open Transport system is being used then update the **TCP/IP** control panel to the **Hosts** file again by pressing **Select Hosts File...**
- vi If the Open Transport system is being used, but earlier than version 1.1, then check that the **Domain** name section of the **TCP/IP** control panel is filled in correctly (see "*Installing TCP/IP - Using Open Transport*").
- vii The Macintosh only passes ASCII text in the Hosts file. Some character sets (for example, Japanese), can switch modes out of ASCII but still look like ASCII.

Graphic Paintbox 2

B NO CONNECTION

If the Macintosh 'resolves' the **Hostname** but will not connect, check for one of the following:

- i Ensure that the first three numbers of the **Mac IP Address** and the **GPB 2 IP Address** are the same. Only the last number should be different between these two Addresses.

Note: The first 3 numbers of a **Class C** Address set up the **Network ID** and **Subnet ID**. The Macintosh will not attempt to connect to any device that is on a different **Network ID** or **Subnet ID** to itself.

- ii If there is anything between the Macintosh and GPB 2 such as a 'Hub' or 'Router' for example, then connect just the Macintosh and the GPB 2 with a 'twisted' cable.

- iii Check the Ethernet card.

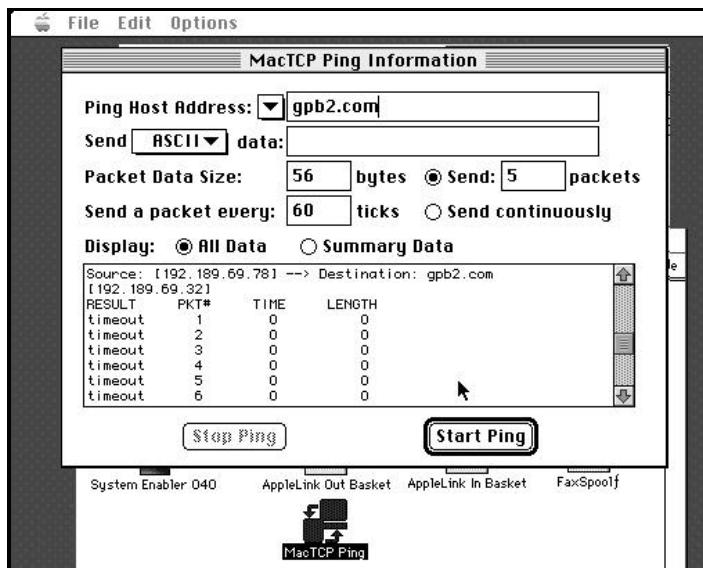
Most Ethernet cards have diagnostic LED's that indicate if a link is made, if any activity occurs and also if it is operating at 100MBits.

- iv Check the driver for the Ethernet card. The driver may be out of date (particularly if **Open Transport** is being used) and it may be necessary to contact the manufacturer.

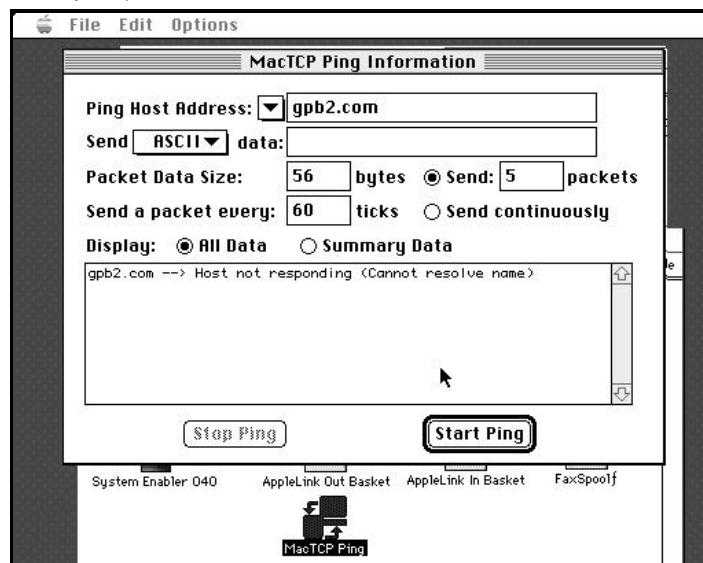
- v Check if Snetcomm can **Ping** the Macintosh.

C EXAMPLES OF POSSIBLE MacTCP PROBLEMS

- i Macintosh resolves **Hostname** but cannot **ping** it:

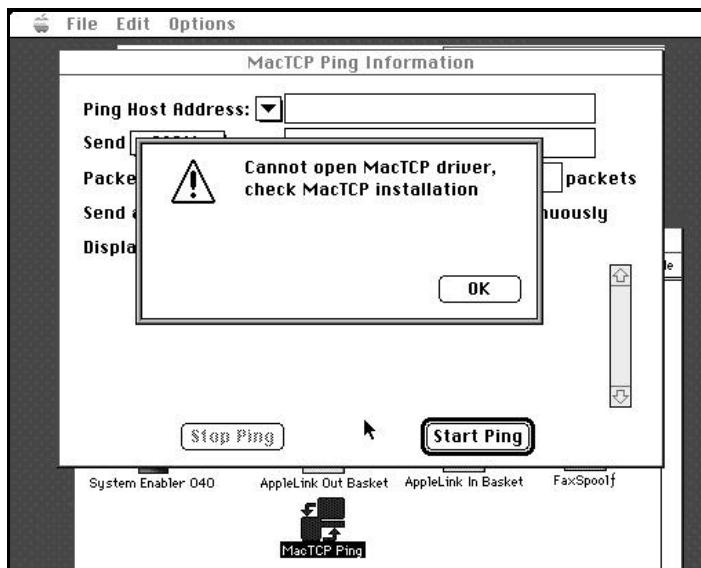


- ii Macintosh fails to resolve the GPB2 **Hostname** (**ping** not attempted).



Graphic Paintbox 2

iii Macintosh set-up problem:



Mac & Snetcomm

The Macintosh can be used as a terminal for Snetcomm. The procedure for this is as follows:

- i Connect the diagnostic cable between Snetcomm's diagnostic port and the Macintosh modem port.
- ii Ensure that the Network Control Panel is not set to **Local Talk** (if using **MacTCP**), or that the AppleTalk Control Panel is not set to **Modem Port** (if using the **Open Transport** system).
- iii Start the **GPB 2 Terminal** file (which in turn will start **Microphone**). There should now be a link to Snetcomm.

IP Addresses

Where a customer already has a **TCP/IP** network installed they will be required to allocate addresses. Where the customer does not have such a network, Quantel will provide Addresses.

The procedure for setting up Snetcomm IP Addresses is as follows:

i Use the **sethost** command from the **tcpip** prompt ie:

```
>tcpip  
tcpip>sethost 192.189.69.41 GPB2
```

ii Once set, this information can be accessed at any time by using the **gethost** command ie:

```
>tcpip  
tcpip>gethost  
Internet address 192.189.69.41  
Internet host "GPB2"
```

TCP / IP

The **Hostname** given to Snetcomm does not have to match the **Hostname** used by the Macintosh in the **Hosts** file, but the IP Address must match. **Always** reboot the GPB2 after any changes to Snetcomm's IP Address.

The procedure for using **Ping** from Snetcomm is as follows:

iii **Ping** is available with **gethost** and **sethost** under the **tcpip** prompt. It will try to find the **Host** four times. If the Macintosh is at IP Address 192.189.69.42 for example:

```
>tcpip  
tcpip>ping 192.189.69.42  
Ping 1  
closE  
192.189.69.42 is OK  
Ping 2  
closE  
192.189.69.42 is OK (etc...)
```

Or, if the **Host** is not responding:

```
Ping 1  
closE  
no answer
```

Graphic Paintbox 2

APPENDIX B

GPB 2 MAC MENUS

GPB 2 MAC

Graphic Paintbox 2

GPB 2 MAC MENUS

Description

Launching the Graphic Paintbox 2 application on a Macintosh will recall a series of menu selections to enable RGB and CMYK file types (if the CMYK option is installed), to be transferred between the Macintosh and the system Workstation.

Operation

The Graphic Paintbox 2 application is launched by double clicking the GPB 2 icon.

'Apple' Icon	Details the software version of the currently launched application (ie GPB 2 V*.**, where V*.** is the current software version).
File	This controls access to images on the Macintosh and is used to set up user preferences.
Edit	This menu provides standard Apple Macintosh editing tools.
Manual	This allows images to be manually transferred between the Graphic Paintbox 2 and the Macintosh.

Graphic Paintbox 2

File

A PREFERENCES

The preferences menu allows user working preferences to be defined for use with the GPB 2 application.

General Enables the file extensions that are to be used with CMYK and RGB files, to be manually defined. The default extensions are “CMYK” for a CMYK extension and “RGB” for an RGB file, but these can be altered as required.

The **show preview in file window** function automatically displays a low resolution preview image in the **Manual - Mac to GPB 2 or the Manual GPB 2 to Mac** window.

Host name Used to define the name of the Macintosh that is running the GPB 2 application on the current network. The **lookup name** function will recall a file window that can be used to search for the name of the appropriate station.

Note: Please refer to the appropriate Macintosh documentation for further information on setting up ‘Host’ systems.

B SAVE PREFERENCES

This function is used to save the current GPB 2 set up. The currently saved set up will be re-loaded on the next launch of the GPB 2 application. A quick or ‘short-cut’ method of saving the current preferences is to select ‘**⌘S**’ from the Macintosh keyboard.

C VIEW FILE INFO

Opens a file window to enable a CMYK or RGB image, accessible to the Host Macintosh, to be recalled as a browse miniature with appropriate file information (**View File Info** is also accessed by selecting ‘**⌘F**’ on the Macintosh keyboard).

Tiff Info Indicates the location, name and extension of the selected file.

File Size Details the size of the current file in bytes, Megabytes or Gigabytes.

Colour Mode Gives the colour format of the current image; ie RGB or CMYK.

GPB 2 MAC MENUS

Note: Images which are not RGB or CMYK will not be accessed.

When saving files on GPB2, only CMYK and RGB will be recognised to aid in image security, preventing files from being transferred until the operator is ready.

Byte Order

GPB 2 can read in Hi/Lo or Lo/Hi byte order (enabling a TIFF file to be built on a 'pc' and read into the system), but only the Macintosh byte order can be saved.

Dimensions

Details the height and width of the image, as defined when the file was first processed. Dimensions are in millimetres or inches.

Resolution

The numeric box to the right of resolution, indicates the resolution of the image in **LPM** (Lines Per Millimetre), or in **DPI** (Dots Per Inch). The choice of unit is determined manually to the right of the current resolution value.

The resolution can be used to change the resolution of a TIFF image file. When recalling a SCITEX CT file for example, the resolution will be stated but cannot be altered.

Cancel

Closes the window without accepting any changes to the file parameters.

OK

Closes the window and processes any changes to the file parameters.

D QUIT

Selecting **File - Quit** (or '⌘Q') will save the current preferences (which will be loaded on re-starting the application) and will then exit the GPB 2 application.

Graphic Paintbox 2

Edit

This menu gives access to the standard Macintosh editing controls, allowing highlighted text to be edited.

Undo	Allows the last edit made to be abandoned (ie the previous edit is ‘undone’). Selecting ‘ ⌘Z ’ on the keyboard will also perform an undo operation.
Cut	Will remove (ie delete) the selected text. Selecting ‘ ⌘X ’ will also perform a cut operation.
Copy	Duplicates the currently selected text. This is also performed by selecting ‘ ⌘C ’ on the keyboard.
Paste	Re-applies (ie ‘adds’) previously cut text into the selected text box. ‘ ⌘V ’ will also perform a paste operation.
Clear	Removes (ie clears) the selected text.

Manual

This menu is used to process the transfer of images between the GPB 2 system disk and the Macintosh running the GPB 2 application.

A GPB 2 TO MAC

This is selected when files are to be moved from the GPB 2 system disk to the Macintosh. The ‘quick key’ selection to enter this menu is ‘**⌘B**’ on the Macintosh keyboard.

System	The box at the head of this window (in this example stating “System”), indicates the currently accessible GPB 2 disk. The window below will list any files of suitable type that are available for transfer.
Format	This defines the acceptable colour models that will be searched for on the GPB 2, for transfer. A choice is offered between RGB and CMYK colour models.

GPB 2 MAC MENUS

Disks	Updates the list of known GPB 2, accessible disks. This is used for example when a new Magneto Optical disk is loaded. Selecting disks will enable the GPB 2 application to 'see' and give access to that Magneto Optical disk.
Files	Updates the known list of image files accessible to the GPB 2 application via the currently accessible GPB 2 disks.
New Folder	Creates a new destination folder which can be used to direct files to. When selected, a file window is opened and the current destination folder highlighted. Macintosh HD: Double clicking the disk icon will move the 'file window' up one directory level.
	Eject: Allows a floppy disk in the drive to be ejected. This function will be shown dimmed if no floppy is currently inserted.
	Desktop: Returns the file window to the top level directory; ie the desktop.
	Cancel: Closes the file window without creating a new folder.
	Create: Generates a new folder which is assigned the title entered in the New Folder 'title' box.
	Note: If no title is manually entered, then the folder will retain the name "Untitled Folder".
Cancel	Closes the GPB 2 to Mac window without accepting or processing any changes.
Get Files	Begins the process of transferring files from the selected GPB 2 disk to the selected Macintosh destination folder. Note: Double clicking any file in the current file window will also cause that file to be transferred immediately (ie without selecting Get Files).

Graphic Paintbox 2

Add This will add (ie 'append') the currently selected file in the file window, to the list of files to be transferred to the Macintosh. The list of files selected for transfer is detailed in the 'transfer list' window, situated in the bottom left corner of the **GPB 2 to Mac** window.

Note: More than one file type from more than one location can be added to the list of files to be transferred.

Remove Clears the selected file from the list of files to be transferred to the Macintosh. The file name will disappear from the 'transfer list' window in the bottom left hand corner of the **GPB 2 to Mac** window.

The area in the bottom right hand corner of the **GPB 2 to Mac** window, provides information about the currently selected file. This information box can be de-selected if required (to speed up the selection of files), by unchecking the box. The information displayed will include dimension details, the size of memory the image uses, its current resolution, its **job name** (ie any) and the image **format** (ie CMYK or RGB for example).

B MAC TO GPB 2

This is selected when files are to be moved from any Macintosh disk visible to the GPB 2 application running on the Macintosh, to the selected GPB 2 disk. The 'quick key' to enter this selection is '**⌘M**' on the Macintosh keyboard.

To GPB 2: Details the current selected disk that images are to be transferred to, from the Macintosh. Pressing on this name will list all the available disks. Highlighting another name will make that disk the currently selected transfer destination.

Disks Updates the list of known, accessible disks.

Desktop Returns the file window to the top level directory (ie the **Desktop**).

Eject Selected to eject a floppy disk from the Macintosh floppy disk drive. This function will be shown dimmed if no floppy disk is currently inserted.

GPB 2 MAC MENUS

Open	Sends the currently selected files to the indicated GPB 2 disk. The list of files that will be transferred is detailed in the 'transfer list' window, situated in the bottom left hand corner of the Mac to GPB 2 window . Note: Double clicking any image file name will also transfer that file, immediately (ie without selecting Open).
Cancel	Closes the Mac to GPB 2 without processing any file transfers.
Add	This will add (ie 'append') the currently selected file in the file window, to the list of files to be transferred to the GPB 2 disk. The list of files selected for transfer, is detailed in the 'transfer list' window, situated in the bottom left corner of the Mac to GPB 2 window. Note: More than one file type from more than one location can be added to the list of files to be transferred.
Remove	Clears the selected file from the list of files to be transferred to GPB 2. The file name will disappear from the 'transfer list' window in the bottom left hand corner of the Mac to GPB 2 window.
Info	Displays a preview image in the bottom right hand corner of this window, of the currently selected file. This can be used to confirm that the correct image has been selected before file transfer is actioned.

Graphic Paintbox 2

C FILE TYPE

This menu determines the file format that is to be used then images are transferred from the GPB 2 to the Macintosh. The transfer file types are either RGB or CMYK, **TIFF** (Tagged Image File Format) or **Scitex CT** (Scitex Handshake format). The currently selected file type is indicated by a tick (✓) appearing next to its name. Drag the cursor onto a new name to change the current file type selection.

D DESTINATIONS

When images are transferred to the Macintosh environment from the GPB 2 system, the image destination folder is pre-determined by the location indicated here.

Dest: Clicking on the **Destination** button allows the file directory path to be set from the file window which will be opened.